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Geol Survey

Press Bulletin Series

For The Oil and Gas Industry

STATE OF ILLINOIS
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ILLINOIS PETROLEUM

July 13, 1940

Oil and Gas Development in Illinois in 1939*

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In 1939 Illinois produced 94,302,000 bbl. of oil—almost three times the amount of oil produced at the peak in 1908, when development in the southeastern Illinois field was at its height (Fig. 1). It represents nearly a fourfold increase over the 24,075,000 bbl. produced in 1938 (Table 6).

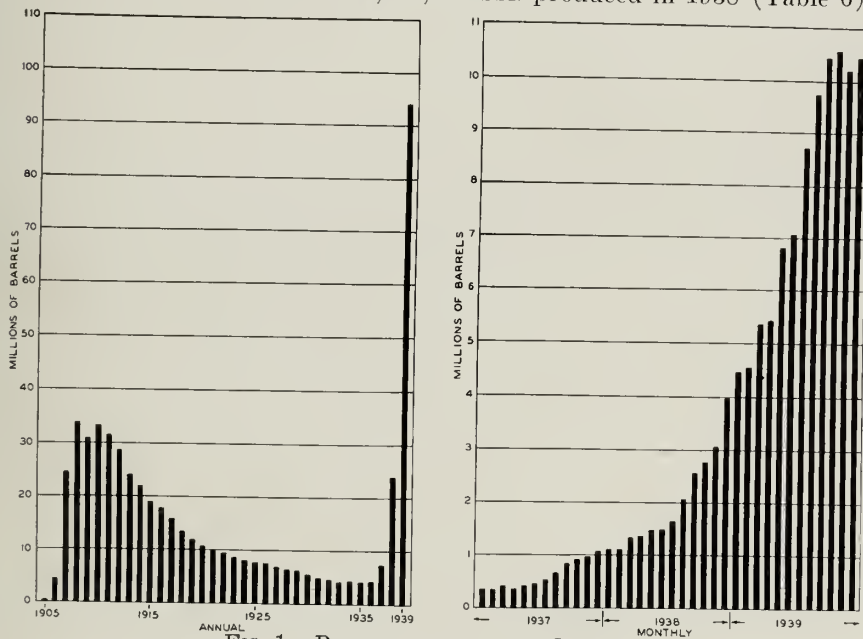


FIG. 1.—PRODUCTION OF OIL IN ILLINOIS.

This rapid increase in oil production in Illinois is largely due to development in the Salem and Loudon fields (Table 1). During 1939 daily production for the state increased from 135,000 to 332,572 bbl. A notable increase in production for 1940 is expected as a result of the drilling of the Devonian limestone in the Salem and Centralia fields,

* Reprinted, with certain additions, from "Recent Development and Technology," Trans. A. I. M. E., vol. 136, pp. 268-80, 1940.

TABLE 1.—*Oil and Gas Production in Illinois*

Line Number	Field, County	Year of Discovery	Area Proved, Acres		Total Oil Production, Bbl.		Total Gas Production, Millions Cu. Ft.		Number of Oil and/or Gas Wells					
			Oil	Gas ^b	To End of 1939	During 1939	To End of 1939	During 1939	Completed to End of 1939	During 1939			End of 1939	
										Completed	Abandoned	Tempo. Shut Down	Producing Oil ^c	Producing Gas ^c
1	Warrenton-Borton, Edgar	1906	100	0	29,655	625	0	0	22	0	0	1	13	0
2	Westfield (Parker Twp.), Clark, Coles	1904	9,000	55	x	x	x	0	1,624	3	33	24	326	0
3			850	75	x	x	x	0	185	0	0	y	y	0
4			9,000	0	x	x	x	0	1,446	2	0	y	y	0
5			1,500	0	x	x	x	0	13	1	0	y	y	0
6	Siggins (Union Twp.), Cumberland, Clark	1906	3,580	75	x	x	x	0	995	0	51	0	863	0
7			3,135	55	x	x	x	0	854	0	y	0	y	0
8			435	15	x	x	x	0	90	0	y	0	y	0
9			855	105	x	x	x	0	192	0	y	0	y	0
10	York, Cumberland	y	310	40	x	x	x	0	70	0	0	0	44	0
11	Casey, Clark	1906	1,925	55	x	x	x	0	532	0	0	0	488	0
12			190	15	x	x	x	0	41	0	0	0	y	0
13			400	0	x	x	x	0	82	0	0	0	y	0
14			1,525	15	x	x	x	0	319	0	0	0	y	0
15	Martinsville, Clark	1907	710	155	x	x	x	0	213	0	0	0	122	0
16			15	20	x	x	x	0	7	0	0	0	y	0
17			275	35	x	x	x	0	63	0	0	0	y	0
18			105	0	x	x	x	0	21	0	0	0	y	0
19			170	0	x	x	x	0	34	0	0	0	y	0
20			195	0	x	x	x	0	39	0	0	0	y	0
21			5	0	x	x	0	0	1	0	0	0	y	0
22	North Johnson, Clark	1907	1,320	20	x	x	x	x	485	0	15	21	412	0
23			1,115	0	x	x	x	x	296	0	y	y	y	0
24			160	0	x	x	x	x	32	0	y	y	y	0
25			820	5	x	x	x	x	177	0	y	y	y	0
26			215	0	x	x	0	0	44	0	y	y	y	0
27	South Johnson, Clark	1907	1,715	65	x	x	x	x	535	1	8	0	479	0
28			185	5	x	x	x	x	38	0	y	0	y	0
29			295	0	x	x	x	x	59	0	y	0	y	0
30			1,675	35	x	x	x	x	402	1	y	0	y	0
31			845	5	x	x	x	x	170	0	y	0	y	0
32	Bellair, Crawford, Jasper	1907	1,300	5	x	x	x	x	486	1	9	0	395	0
33			1,165	0	x	x	x	x	310	1	y	0	y	0
34			315	0	x	x	x	x	65	0	y	0	y	0
35			910	0	x	x	x	x	182	0	y	0	y	0
36	Clark County Division ¹		19,960	475	52,388,000	283,000	x	y	4,987	5	116	46	3,142	0
37	Main, ² Crawford	1906	35,135	515	x	x	x	x	7,322	0	198	243	4,912	0
38			340	0	x	x	x	x	68	0	y	y	y	0
39			33,795	510	x	x	x	x	7,141	0	y	y	y	0
40			1,000	0	x	x	x	x	108	0	y	y	y	0
41	New Hebron, Crawford	1909	1,350	210	x	x	x	x	297	1	5	1	173	0
42	Chapman, Crawford	1914	1,045	515	x	x	x	x	193	0	4	0	68	0
43	Parker, Crawford	1907	1,310	30	x	x	x	x	256	0	0	0	221	0
44	Allison-Weger, Crawford	y	1,075	20	x	x	x	x	147	1	1	0	65	0
45	Flat Rock, ³ Crawford	y	1,375	545	x	x	x	x	289	0	6	1	143	0
46	Birds, Crawford, Lawrence	y	4,370	115	x	x	x	x	684	0	14	6	459	0

^b Footnotes to column heads and explanation of symbols are given on page 38.

¹ Total of lines 1, 2, 6, 10, 11, 15, 22, 27, 32.

² Includes Kibbie, Oblong, Robinson, and Hardinsville.

³ Includes Swearingen gas.

TABLE 1.—(Continued)

Line Number	Oil-production Methods, End of 1939		Reservoir Pressure, Lb. per Sq. In. ²⁶		Repressuring Operation ^d	Character of Oil		Producing Formation								Deepest Zone Tested to End of 1939			
	Number of Wells		Initial	Avg. at End of 1939		Gravity, A. P. I. at 60° F., Weighted Average	Sulphur, Per Cent	Name	Age ^a	Character ^f	Porosity ^g	Depth Avg. Ft.			Structure ^h	Name	Depth of Hole, Ft.		
	Flowing	Artificial Lift										Top Prod. Zone	Bottoms Prod. Wells	Net Thickness, Avg. Ft.					
1	0	13	<i>x</i>	<i>x</i>	RP	<i>x</i>	<i>x</i>	Unnamed	Pen	<i>S</i>	Por	159	215	<i>x</i>	ML	Pen St. Peter	715 3,009		
2	0	326	200±	<i>x</i>		34.0	<i>x</i>	See below							D				
3	0	<i>y</i>	<i>x</i>	<i>x</i>		30.0	<i>x</i>	Shallow gas sand	Pen	<i>S</i>	Por	281	376	36	D				
4	0	<i>y</i>	<i>x</i>	<i>x</i>		33.5	<i>x</i>	Westfield lime	MisL	L	Cav	334	446	<i>x</i>	D				
5	0	<i>y</i>	<i>x</i>	<i>x</i>		37.0	<i>x</i>	Trenton	Ord	L	Por	2,265	2,568	<i>x</i>	D				
6	0	863	<i>x</i>	<i>x</i>		33.0	<i>x</i>	See below							D				
7	0	<i>y</i>	<i>x</i>	<i>x</i>	RP	34.0	<i>x</i>	First Siggins sand	Pen	<i>S</i>	Por	367	465	<i>x</i>	D	Devonian	2,010		
8	0	<i>y</i>	<i>x</i>	<i>x</i>		(33.6)*	<i>x</i>	Second and third Siggins sand	Pen	<i>S</i>	Por	478	562	<i>x</i>	D				
9	0	<i>y</i>	<i>x</i>	<i>x</i>		(25.7)	<i>x</i>	Lower Siggins sand	Pen	<i>S</i>	Por	556	590	<i>x</i>	D				
10	0	44	<i>x</i>	<i>x</i>		(30.3)	<i>x</i>	York sand	Pen	<i>S</i>	Por	588	680	<i>x</i>	AM				
11	0	488	<i>x</i>	<i>x</i>		29.2	<i>x</i>	See below							AM				
12	0	<i>y</i>	<i>x</i>	<i>x</i>		(31.9)	<i>x</i>	Upper gas sand	Pen	<i>S</i>	Por	263	358	<i>x</i>	AM				
13	0	<i>y</i>	<i>x</i>	<i>x</i>	RP	(30.1)	<i>x</i>	Lower gas sand	Pen	<i>S</i>	Por	309	426	<i>x</i>	AM	St. Peter	3,411		
14	0	<i>y</i>	<i>x</i>	<i>x</i>		(33.6)	<i>x</i>	Casey sand	Pen	<i>S</i>	Por	444	505	<i>x</i>	AM				
15	0	122	<i>x</i>	<i>x</i>		36.8	<i>x</i>	See below							D				
16	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Shallow sand	Pen	<i>S</i>	Por	255	411	<i>x</i>	D				
17	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Casey sand	Pen	<i>S</i>	Por	449	511	<i>x</i>	D				
18	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Martinsville	MisL	L	Por	477	506	<i>x</i>	D				
19	0	<i>y</i>	<i>x</i>	<i>x</i>	RP	(38.9)	<i>x</i>	Carper	MisL	L	Por	1,340	1,418	<i>x</i>	D	Mis	1,160		
20	0	<i>y</i>	<i>x</i>	<i>x</i>		(39.6)	<i>x</i>	"Niagaran"	Dev	L	Por	1,553	1,596	<i>x</i>	D				
21	0	<i>y</i>	<i>x</i>	<i>x</i>		(39.6)	<i>x</i>	Trenton	Ord	L	Por	2,708	2,830	<i>x</i>	D				
22	0	412	<i>x</i>	<i>x</i>		31.0	<i>x</i>	See below							AM				
23	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Claypool sand	Pen	<i>S</i>	Por	416	486	<i>x</i>	AM				
24	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Shallow sands	Pen	<i>S</i>	Por	314	451	<i>x</i>	AM				
25	0	<i>y</i>	<i>x</i>	<i>x</i>	RP	<i>y</i>	<i>x</i>	Casey sand	Pen	<i>S</i>	Por	465	508	<i>x</i>	AM	MisL	1,471		
26	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Upper Partlow	Pen	<i>S</i>	Por	534	554	<i>x</i>	AM				
27	0	479	<i>x</i>	<i>x</i>		32.2	<i>x</i>	See below							AM				
28	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Claypool sand	Pen	<i>S</i>	Por	392	549	<i>x</i>	AM				
29	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Casey sand	Pen	<i>S</i>	Por	453	518	<i>x</i>	AM				
30	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Upper Partlow	Pen	<i>S</i>	Por	489	570	<i>x</i>	AM				
31	0	<i>y</i>	<i>x</i>	<i>x</i>	RP	28.5	<i>x</i>	Lower Partlow	Pen	<i>S</i>	Por	598	618	<i>x</i>	AM	Trenton	4,620		
32	0	395	<i>x</i>	<i>x</i>		33.7	<i>x</i>	See below							AM				
33	0	<i>y</i>	<i>x</i>	<i>x</i>		(32.4)	<i>x</i>	"500 Ft." sand	Pen	<i>S</i>	Por	561	726	<i>x</i>	AM				
34	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	"800 Ft." sand	Pen	<i>S</i>	Por	817	907	<i>x</i>	AM				
35	0	<i>y</i>	<i>x</i>	<i>x</i>		(37.0)	<i>x</i>	"900 Ft." sand	MisU	<i>S</i>	Por	886	920	<i>x</i>	AM				
36	0	3,142	<i>x</i>	<i>x</i>		33.0	<i>x</i>							33±					
37	0	4,912	425±	<i>y</i>	RP	33.0	<i>x</i>	See below								Trenton	4,620		
38	0	<i>y</i>	<i>x</i>	<i>x</i>	RP	<i>y</i>	<i>x</i>	Shallow sand	Pen	<i>S</i>	Por	508	822	<i>x</i>	ML	Trenton Mis	4,620 1,479		
39	0	<i>y</i>	<i>x</i>	<i>x</i>		32.8	<i>x</i>	Robinson sand	Pen	<i>S</i>	Por	900	960	25±	ML				
40	0	<i>y</i>	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Oblong	Mis	S, L	Por	1,337	1,416	<i>x</i>	A, ML				
41	0	173	<i>x</i>	<i>x</i>		30.1	<i>x</i>	Robinson sand	Pen	<i>S</i>	Por	940	975	<i>x</i>	ML			MisL	2,056
42	0	68	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Robinson sand	Pen	<i>S</i>	Por	995	1,015	<i>x</i>	ML			Mis	2,279
43	0	221	<i>x</i>	<i>x</i>		<i>y</i>	<i>x</i>	Robinson sand	Pen	<i>S</i>	Por	1,000	1,025	<i>x</i>	ML			Pen	1,127
44	0	65	<i>x</i>	<i>x</i>	RP	29.5	<i>x</i>	Robinson sand	Pen	<i>S</i>	Por	912	930	<i>x</i>	ML	Pen	1,041		
45	0	143	<i>x</i>	<i>x</i>		22.5	<i>x</i>	Robinson (Flat Rock)	Pen	<i>S</i>	Por	935	945	<i>x</i>	ML	Pen	1,032		
46	0	459	<i>x</i>	<i>x</i>	RP	31.8	<i>x</i>	Robinson sand	Pen	<i>S</i>	Por	930	950	<i>x</i>	ML	MisL	1,731		

²⁶ Pressures in the southeastern Illinois oil fields are estimated bottom-hole pressures reported in previous Survey publications.

²⁷ All gravities given prior to 1936 (except those in parentheses) were from data for the year 1925 furnished by the Illinois Pipe Line Co. Gravities in parentheses are for particular samples, see Illinois State Geol. Survey *Bull.* 54, Table 3. The values have been converted from Baumé to A. P. I. gravities.

* See footnote 27.

TABLE 1.—(Continued)

Line Number	Field, County	Year of Discovery	Area Proved, Acres		Total Oil Production, Bbl.		Total Gas Production, Millions Cu. Ft.		Number of Oil and/or Gas Wells						
			Oil	Gas ^b	To End of 1939	During 1939	To End of 1939	During 1939	Completed to End of 1939	During 1939		End of 1939			
										Completed	Abandoned	Tempo. Shut Down ^c	Producing Oil ^e	Producing Gas ^d	
47	Crawford County Division ⁴	1906	45,655	1,945	144,682,000	1,063,000	x	y	9,195	2	228	251	6,041	0	
48	Lawrence, Lawrence, Crawford		24,150	1,550	x	x	x	x	4,401	3	23	116	3,167	0	
49			5,015	35	x	x	x	x	1,232	1	y	y	y	0	
50			2,240	0	x	x	x	x	475	0	y	y	y	0	
51			345	1,095	x	x	x	x	243	0	y	y	y	0	
52		y	15,960	220	x	x	x	x	3,017	0	y	y	y	0	
53			4,020	200	x	x	x	x	685	1	y	y	y	0	
54			6,950	0	x	x	x	x	958	1	y	y	y	0	
55	St. Francisville, Lawrence		420	0	x	x	x	x	55	0	0	0	45	0	
56	Lawrence County Division ⁵		24,570	1,550	224,436,000	1,304,000	x	y	4,462	3	23	116	3,212	0	
57	Allendale, Wabash	1912	1,680	0	4,743,000	87,000	x	y	427	0	1	0	325	0	
58	Total southeastern fields ⁶		91,855	3,970	426,278,655	2,737,625	x	y	19,074	10	368	413	12,720	0	
59	Ayres Gas, Bond		1922	0	325	0	0	180.6	13.6	19	0	1	0	0	6
60	Greenville Gas, Bond		1910 ⁷	0	160	0	0	990.0	0	4	0	0	0	0	0
61	Bartleso, Clinton		1936	200	0	360,570	107,000	0	0	39	3	0	0	39	0
62		1939	10	0	3,000	3,000	0	0	1	1	0	0	1	0	
63	Carlyle, Clinton	1911	915	0	3,373,400	29,000	0	0	165	0	0	25	78	0	
64	Frogtown, Clinton	1918 ⁸	300	0	x	0	0	0	12	0	0	0	0	0	
65	Ava-Campbell Hill, Jackson		70	370	25,000	0	x	0	35	0	0	0	0	0	
66	Colmar-Plymouth, McDonough, Hancock		1913	2,450	0	2,551,970	136,000	0	y	478	1	0	72	210	0
67	Decatur, Macon	1937 ¹⁰	10	0	1,000	0	0	0	2	0	0	2	0	0	
68	Carlinville, Macoupin	1909 ¹¹	30	50	x	0	x	0	8	0	0	0	0	0	
69	Gillespie-Benld Gas, Macoupin	1923 ¹²	0	80	0	0	135.8	0	4	0	0	0	0	0	
70	Gillespie-Wyen, Macoupin		1915	40	0	x	0	0	0	22	0	0	12	0	0
71	Spanish Needle Creek Gas, Macoupin		1915 ¹³	0	80	0	0	14.4	0	7	0	0	0	0	0
72	Staunton Gas, Macoupin	1916 ¹⁴	0	400	0	0	1,050	0	18	0	0	0	0	0	
73	Collinsville, Madison	1909 ¹⁵	40	0	850	135	0	0	6	1	1	0	0	0	
74	Brown-Langewisch Kuester Junction City, Marion	1910	175	0	x	y	0	0	12	0	0	0	5	0	
75		1909	20	0	x	y	0	0	10	0	0	0	4	0	
76	Sandoval, Marion		770	0	2,665,800	20,000	0	0	123	0	0	0	37	0	
77			135	0	794,000	794,000	0	0	22	21	0	0	22	0	
78	Wamac, Marion, Clinton, Washington	1921	250	0	403,530	21,000	0	0	104	0	3	0	43	0	
79	Litchfield, Montgomery	1879 ¹⁶	100	0	22,000	0	0	0	18	1	0	1	0	0	

⁴ Total of lines 37, 41, 42, 43, 44, 45, 46.⁵ Total of lines 48 and 55.⁶ Total of lines 36, 47, 56, 57.⁷ Abandoned 1923.⁸ Abandoned 1933.⁹ Abandoned 1934.¹⁰ Wells drilled in 1922 and 1924, first production in 1937.¹¹ Abandoned 1925±.¹² Abandoned 1935.¹³ Abandoned 1934.¹⁴ Abandoned 1919.¹⁵ Abandoned 1921, one well completed and abandoned in 1939.¹⁶ Abandoned 1904, one well completed and shut down in 1939.

which began in December 1939. This development has focused interest on Devonian possibilities in both old and new fields that are producing from younger formations.

Of a total of 3675 wells completed in 1939 in Illinois, 2946 produced oil, 24 produced gas and 705 were dry holes. Of the total, 478 are classified as "wildcat" wells, defined as wells drilled outside of proved territory and more than one mile from the nearest production (See table 2). The remainder, or 3197, were drilled in or near proved fields.

TABLE 1.—(Continued)

Line Number	Oil-Production Methods, End of 1939		Reservoir Pressure, Lb. per Sq. In. ²⁶		Repressuring Operation ^d	Character of Oil		Producing Formation										Deepest Zone Tested to End of 1939	
	Number of Wells		Initial	Avg. at End of 1939		Gravity, A.P.I. at 60°F., ²⁷ Weighted Average	Sulphur, Per Cent	Name	Age ^e	Character ^f	Porosity ^g	Depth Avg. Ft.			Structure ^h	Name	Depth of Hole, Ft.		
	Flowing	Artificial Lift										Top Prod. Zone	Bottoms Prod. Wells	Net Thickness, Avg. Ft.					
47	0	6,041	425±	x		32.3	x		Pen	S	Por				ML	Trenton	4,620		
48	0	3,167	650±	x	RP	32.9	x	See below							A	St. Peter	5,190		
49	0	y	x	y		y	x	Bridgeport sand	Pen	S	Por	800	1,000	40	A				
50	0	y	x	x		y	x	Buchanan	Pen	S	Por	1,250	1,265	15	A				
51	0	y	x	x		y	x	"Gas" sand	MisU	S	Por	1,330	1,345	15	A				
52	0	y	600±	x		y	x	Kirkwood	MisU	S	Por	1,400	1,430	30	A				
53	0	y	650	x		y	x	Tracey	MisU	S	Por	1,560	1,580	20	A				
54	0	y	x	x		y	x	McClosky	MisL	L	Por	1,700	1,710	10	A				
55	0	45	600	x		37.3	x	Kirkwood	MisU	S	Por	1,843	1,865	22	ML	Mis	1,900		
56	0	3,212	x	x												St. Peter	5,190		
57	0	325	x	x	RP	35.1		Biehl sand	Pen	S	Por	1,425	1,460	20	AM	MisL	2,367		
58	0	12,720																	
59	0	0	335		225			Lindley (2d)	MisU	S	Por	940	945	5	A	MisL	1,150		
60	0	0	x	x				Lindley (1st, 2d)	MisU	S	Por	927	993	x	A	Mis	1,065		
61	0	39	x	x		36.2	0.20	Carlyle	MisU	S	Por	984	1,008	24	D	Devonian	2,431		
62	0	1	x	x		41.5	0.27	Devonian	Dev	L	Por	2,416	2,431	14	D	Devonian	2,431		
63	0	78	x	x	RP	35.2	0.26	Carlyle	MisU	S	Por	1,035	1,055	20	A	Silurian	2,620		
64	0	0	x	x		31.9	x	Carlyle	MisU	S	Por	950	957	7	D	Cypress	962		
65	0	0	x	x		x	x	Cypress	MisU	S	Por	780	798	18	A	Devonian	2,530		
66	0	210	x	x	RP	37.6	0.38	Hoing sand	Dev	S	Por	447	468	21	A	Trenton	805		
67	0	0	x	x		39.5	x	"Niagaran"	Dev	L	Por	2,020	2,076	30	N	St. Peter	2,991		
68	0	0	135	x		27.7	x	Unnamed	Pen	S	Por	380	398	x	A	Pen	410		
69	0	0	155	x				Unnamed	Pen	S	Por	542	555	x	A	Pen	575		
70	0	0	x	x		30.0	x	Unnamed	Pen	S	Por	650	670	x	T	Trenton	2,560		
71	0	0	x	x				Unnamed	Pen	S	Por	305	405	x	D	Pen	495		
72	0	0	145	x				Unnamed	Pen	S	Por	461	491	x	A	Trenton	2,371		
73	0	0	x	x		x	x	Devonian-Silurian	Dev-Sil	L	Por	1,305	1,400	20	ML	Silurian	1,500		
74	0	5	x	x		32.0	x	Dykstra, Wilson	Pen	S	Por	1,130	1,150	20	D	MisL	2,001		
75	0	4	x	x		32.0	x	Cypress	MisU	S	Por	1,658	1,673	15	ML	Devonian	3,344		
76	0	37	x	x		34.5	x	Benoist	MisU	S	Por	1,540	1,560	20±	D	Devonian	3,055		
77	3	19	y	y		38.0	0.38	Devonian	Dev	L	Por	2,924	2,969	9	D	Devonian	3,055		
78	0	43	x	x		30.2	x	Petro	Pen	S	Por	720	760	20	D	MisL	1,760		
79	0	0	x	x		21.7	x	Unnamed	Pen	S	Por	664	674	r	D	Pen	681		

TABLE 1.—(Continued)

Line Number	Field, County	Year of Discovery	Area Proved, Acres		Total Oil Production, Bbl.		Total Gas Production, Millions Cu. Ft.		Number of Oil and/or Gas Wells				
			Oil	Gas ^b	To End of 1939	During 1939	To End of 1939	During 1939	Complete to End of 1939	During 1939		End of 1939	
										Completed	Abandoned	Tempo. Shut Down	Producing Oil-Producing Gas ^c
80	Waterloo, Monroe.....	1920 ¹⁷	125	0	176,000	10,000	0	0	30	7	0	0	7 0
81	Jacksonville Gas, Morgan.....	1910 ¹⁸	30	1,290	2,100	0	x	0	53	0	0	0	0 0
82	Pike County Gas, Pike.....	1905 ¹⁹	0	8,960	0	0	x	0	68	0	0	0	0 0
83	Sparta, Randolph.....	1888 ²⁰	65	100	x	0	x	0	20	0	0	0	0 0
84	Dupo, St. Clair.....	1928	670	0	1,092,870	146,000	0	0	263	21	1	0	49 0
85	Total for fields prior to Jan. 1, 1937 ²¹		98,095	15,785	437,750,745	4,003,760	2,370.8	13.6	20,617	66	374	523	13,215 6
86	Sorento, Bond.....	1938	10	0	y	y	0	0	1	0	0	0	1 0
87	Flora, Clay.....	1938	290	0	214,000	147,000	0	0	17	8	0	0	17 0
88			10	0	x	x	0	0	1	1	0	0	1 0
89			290	0	x	x	0	0	16	7	0	0	16 0
90	Iola, Clay.....	1939	20	0	y	y	0	0	2	2	0	0	2 0
91	Clay City, Clay, Wayne.....	1937	7,930	0	11,895,000	6,336,000	0	0	379	157	4	6	369 0
92	Hoffman, Clinton.....	1939	10	0	y	y	0	0	1	1	0	0	1 0
93	Centralia, Clinton, Marion.....	1937	2,190	0	5,922,000	2,895,000	0	0	553	27	14	0	539 0
94			30	0	x	x	0	0	21	9	0	0	21 0
95			2,190	0	x	x	0	0	531	17	14	0	517 0
96			10	0	x	x	0	0	1	1	0	0	1 0
97	Mattoon, Coles.....	1939 ²²	10	0	y	y	0	0	1	1	1	0	0 0
98	Cowling, Edwards.....	1939	100	0	25,000	25,000	0	0	11	11	0	0	11 0
99	Grayville, Edwards, White.....	1939	70	0	30,000	30,000	0	0	8	8	0	0	8 0
100	Louden, Fayette.....	1937	16,370	0	20,237,000	18,345,000	0	0	1,334	843	3	2	1,329 0
101			y	0	x	x	0	0	630	377	3	0	627 0
102			y	0	x	x	0	0	283	265	0	0	283 0
103			y	0	x	x	0	0	421	201	0	2	419 0
104	St. James, Fayette.....	1938	1,030	0	494,000	445,000	0	0	76	52	0	0	76 0
105	Whittington, Franklin.....	1939	10	0	y	y	0	0	1	1	0	0	1 0
106	Junction, Gallatin.....	1939	60	0	y	y	0	0	6	6	0	0	6 0
107	Cravat, Jefferson.....	1939	100	0	14,000	14,000	0	0	6	6	0	0	6 0
108	Dix, Jefferson.....	1938	1,250	0	y	y	0	0	57	22	0	0	57 0
109	Elk Prairie, Jefferson.....	1938	10	0	y	y	0	0	1	0	0	0	1 0
110	Ina, Jefferson.....	1938	10	0	y	y	0	0	1	0	0	0	1 0
111	Marcoe, Jefferson.....	1938	10	0	y	y	0	0	2	1	1	0	1 0
112	Roaches, Jefferson.....	1938	110	0	70,000	70,000	0	0	9	7	0	0	9 0
113			y	0	x	x	0	0	4	3	0	0	4 0
114			110	0	x	x	0	0	5	4	0	0	5 0
115	Russellville gas, Lawrence.....	1937	0	1,020	0	0	1,065.1	963.7	32	18	0	0	0 32
116			0	20	0	0	y	y	4	2	0	0	0 4
117			0	1,000	0	0	y	y	28	16	0	0	0 28
118	Patoka, Marion.....	1937	720	0	1,661,000	494,000	0	0	115	0	11	0	104 0
119			710	0	x	x	0	0	114	0	11	0	103 0
120			10	0	x	x	0	0	1	0	0	0	1 0
121	Salein, Marion.....	1938	8,870	0	52,619,000	49,724,000	0	0	1,581	1,088	4	17	1,560 0
122			y	0	x	x	0	0	884	442	4	15	865 0
123			y	0	x	x	0	0	141	120	0	0	141 0
124			y	0	x	x	0	0	544	524	0	2	542 0
125			y	0	x	x	0	0	5	5	0	0	5 0
126			y	0	x	x	0	0	7	7	0	0	7 0
127	Tonti, Marion.....	1939	270	0	910,000	910,000	0	0	35	35	0	0	35 0
128			y	0	x	x	0	0	4	4	0	0	4 0
129			y	0	x	x	0	0	4	4	0	0	4 0

¹⁷ Abandoned 1930, revived 1939.¹⁸ Abandoned 1937.¹⁹ Abandoned 1930.²⁰ Abandoned 1900.²¹ Total of lines 58 to 81 inclusive.²² Abandoned 1939.

TABLE 1.—(Continued)

Line Number	Oil-production Methods, End of 1939		Reservoir Pressure, Lb. per Sq. In. ²⁶		Repressuring Operation ⁴	Character of Oil		Producing Formation							Deepest Zone Tested to End of 1939		
	Number of Wells		Initial	Avg. at End of 1939		Gravity, A.P.I. at 60° F. ²⁷ Weighted Average	Sulphur, Per Cent	Name	Age ⁶	Character ⁷	Porosity ⁸	Depth Avg. Ft.			Structure ⁹	Name	Depth of Hole, Ft.
	Flowing	Artificial Lift										Top Prod. Zone	Bottoms Prod. Wells	Net Thickness, Avg. Ft.			
80	0	7	x	x		30.0	x	Trenton	Ord	L	Por	410	460	50	A	Trenton	845
81	0	0	x	x		x	x	Gas sand	Pen	S,SL	Por	330	335	5	ML	Trenton	1,390
82	0	0	x	x				"Niagaran"	Sil	L	Por	265	275	10	A	St. Peter	893
83	0	0	x	x		x	x	Cypress	MisU	S	Por	850	857	7	D	MisU	985
84	0	49	x	x		32.7	0.70	Trenton	Ord	L	Por	601	651	50	A	Trenton	819
85	3	13,212															
86	0	1	x	x		x	x	Devonian	Dev	L	Por	1,800	1,830	y	D	Devonian	1,830
87	0	17													D	MisL	3,100
88	0	1	x	x		37.4	x	Bethel	MisU	S	Por	2,788	2,800	12			
89	0	16	x	x		38.5	x	McClosky	MisL	L	Por	2,965	2,978	6			
90	0	2	x	x		x	x	Aux Vases	MisU	S	Por	2,335	2,351	4	D	MisU	2,383
91	5	364	x	x	PM	38.5	x	McClosky	MisL	L	Por	2,995	3,058	9	A	MisU	3,197
92	0	1	x	x		x	x	Bethel	MisU	S	Por	1,324	1,329	5	D	MisL	1,567
93	0	539													A	Devonian	2,933
94	0	21	x	x		36.4	x	Cypress	MisU	S	Por	1,200	1,225	19			
95	0	517	x	x		37.4	x	Bethel	MisU	S	Por	1,355	1,378	23			
96	0	1	x	x		x	x	Devonian	Dev	L	Por	2,884	2,933	8			
97	0	0	x	x		41.1	0.16	Cypress	MisU	S	Por	1,835	1,919	25	A?	Devonian	3,307
98	0	11	x	x		37.0	0.38	Cypress	MisU	S	Por	2,626	2,640	15	D	MisL	3,175
99	0	8	x	x		36.0	0.31	McClosky	MisL	L	Por	3,093	3,188	6	D?	MisL	3,269
100	361	968			PM										A	Devonian	3,170
101	122	505	x	472		38.5	0.25	Cypress	MisU	S	Por	1,493	1,549	25			
102	96	187	x	406		38.5	x	Stray	MisU	S	Por	1,546	1,571	17			
103	143	276	x	474		38.5	x	Bethel	MisU	S	Por	1,540	1,561	18			
104	0	76	x	500		37.0	0.31	Cypress	MisU	S	Por	1,581	1,600	16	A	Devonian	3,375
105	0	1	x	x		40.0	x	McClosky and Rosiclare	MisL	L	Por	2,869	2,878	9	D	MisL	3,068
106	0	6	x	x		37.2	0.22	Waltersburg	MisU	S	Por	1,763	1,804	15	D	MisL	2,711
107	0	6	x	x		36.0	x	Bethel	MisU	S	Por	2,066	2,076	11	D	MisL	2,356
108	0	57	x	495	PM	38.0	x	Bethel	MisU	S	Por	1,948	1,959	14	A	Devonian	3,650
109	0	1	x	x		x	x	McClosky	MisL	L	Por	2,718	2,751	7	D	MisL	2,958
110	0	1	x	x		x	x	St. Louis	MisL	L	Por	3,002	3,007	5	D	MisL	3,064
111	0	1	x	x		28.0	x	McClosky	MisL	L	Por	2,746	2,765	11	D	MisL	3,066
112	0	9													D	MisL	2,285
113	0	4	x	x		37.0	x	Rosiclare	MisL	S	Por	2,187	2,200	14			
114	0	5	x	x		37.0	x	McClosky	MisL	L	Por	2,241	2,257	8			
115		380+		335											A	Devonian	3,133
116		y		y				Pennsylvania	Pen	S	Por	619	831	12			
117		y		y				Buehanan	Pen	S	Por	1,078	1,119	10			
118	0	104	x	x											A	MisL	1,702
119	0	103	x	x		39.5	x	Bethel	MisU	S	Por	1,424	1,440	16			
120	0	1	x	x		40.9	x	Rosiclare	MisL	S	Por	1,562	1,612	33			
121	260	1,300			PM										A	Devonian	3,502
122	183	682	x	272		39.0	0.22	Benoist	MisU	S	Por	1,797	1,835	35			
123	11	130	x	335		38.6	0.21	Aux Vases	MisU	S	Por	1,813	1,865	28			
124	57	485	x	360		39.0	x	McClosky	MisL	L	Por	1,975	2,048	17			
125	2	5	x	250		37.2	x	Salem	MisL	L	Por	2,177	2,254	17			
126	7	0	x	x		42.1	0.28	Devonian	Dev	L	Por	3,343	3,441	30			
127	0	35													D	Devonian	3,547
128	0	4	x	x		x	x	Bethel	MisU	S	Por	1,928	1,942	14			
129	0	4	x	x		37.0	x	Aux Vases	MisU	S	Por	2,003	2,038	26			

TABLE 1.—(Continued)

Line Number	Field, County	Year of Discovery	Area Proved, Acres		Total Oil Production, Bbl.		Total Gas Production, Millions Cu. Ft.		Number of Oil and/or Gas Wells					
			Oil	Gas ^b	To End of 1939	During 1939	To End of 1939	During 1939	Completed to End of 1939	During 1939		End of 1939		
										Completed	Abandoned	Tempo. Shut Down	Producing Oil ^c	Producing Gas ^c
130			270	0	<i>x</i>	<i>x</i>	0	0	27	27	0	0	27	0
131	Fairman, Marion, Clinton	1939	160	0	<i>y</i>	<i>y</i>	0	0	11	11	0	0	11	0
132	Dundas, Richland	1939	400	0	<i>y</i>	<i>y</i>	0	0	18	18	0	0	18	0
133	Noble, Richland	1937	3,540	0	6,852,000	1,674,000	0	0	220	69	8	2	210	0
134			920	0	<i>x</i>	<i>x</i>	0	0	49	43	0	1	48	0
135			2,620	0	<i>x</i>	<i>x</i>	0	0	171	26	8	1	162	0
136	Olney, Richland	1937	510	0	753,000	338,000	0	0	36	6	0	0	36	0
137	Schnell, Richland	1938	40	0	<i>y</i>	<i>y</i>	0	0	4	0	0	0	4	0
138	Stewardson, Shelby	1939	10	0	<i>y</i>	<i>y</i>	0	0	1	1	0	0	1	0
139	Griffin, Wabash	1939	690	0	169,000	169,000	0	0	47	47	0	0	47	0
140			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	4	4	0	0	4	0
141			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	41	41	0	0	41	0
142			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	2	2	0	0	2	0
143	East Keensburg, Wabash	1939	10	0	<i>y</i>	<i>y</i>	0	0	1	1	0	0	1	0
144	Keensburg, Wabash	1939	700	0	783,000	783,000	0	0	120	120	0	0	120	0
145			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	3	3	0	0	3	0
146			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	117	117	0	0	117	0
147	Mt. Carmel, Wabash	1939	20	0	<i>y</i>	<i>y</i>	0	0	2	2	0	0	2	0
148	Cordes, Washington	1939	1,090	0	468,000	468,000	0	0	95	95	0	0	95	0
149	Dubois, Washington	1939	10	0	<i>y</i>	<i>y</i>	0	0	1	1	0	0	1	0
150	Barnhill, Wayne	1939	750	0	593,000	593,000	0	0	41	41	0	0	41	0
151	Boyleston, Wayne	1938	450	0	218,000	218,000	0	0	25	24	0	0	25	0
152	Cisne, Wayne	1937	960	0	<i>y</i>	<i>y</i>	0	0	47	21	0	1	46	0
153			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	2	0	0	0	2	0
154			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	1	1	0	0	1	0
155			960	0	<i>x</i>	<i>x</i>	0	0	44	20	0	0	44	0
156	Enterprise, Wayne	1939	1,450	0	1,269,000	1,269,000	0	0	50	50	0	0	50	0
157			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	1	1	0	0	1	0
158			1,450	0	<i>x</i>	<i>x</i>	0	0	49	49	0	0	49	0
159	Goldengate, Wayne	1939	30	0	<i>y</i>	<i>y</i>	0	0	3	3	0	0	3	0
160	Leech Twp., Wayne	1938	240	0	105,000	96,000	0	0	9	7	0	0	9	0
161	Mt. Erie, Wayne	1938	10	0	<i>y</i>	<i>y</i>	0	0	1	0	0	0	1	0
162	North Aden, Wayne	1938	1,230	0	1,030,000	725,000	0	0	60	20	0	0	60	0
163	Rinard, Wayne	1937 ²³	10	0	<i>y</i>	<i>y</i>	0	0	1	0	1	0	0	0
164	South Mt. Erie, Wayne	1939	10	0	<i>y</i>	<i>y</i>	0	0	1	1	0	0	1	0
165	Aden, Wayne, Hamilton	1938	200	0	<i>y</i>	<i>y</i>	0	0	5	1	0	0	5	0
166	Calvin, White	1939	20	0	<i>y</i>	<i>y</i>	0	0	2	2	0	0	2	0
167			10	0	<i>x</i>	<i>x</i>	0	0	1	1	0	0	1	0
168			10	0	<i>x</i>	<i>x</i>	0	0	1	1	0	0	1	0
169	Mill Shoals, White	1939	400	0	127,000	127,000	0	0	22	22	0	0	22	0
170			<i>y</i>	0	<i>x</i>	<i>x</i>	0	0	13	13	0	0	13	0
171			400	0	<i>x</i>	<i>x</i>	0	0	9	9	0	0	9	0
172	New Harmony, White	1939	130	0	<i>y</i>	<i>y</i>	0	0	11	11	0	0	11	0
173			120	0	<i>x</i>	<i>x</i>	0	0	10	10	0	0	10	0
174			10	0	<i>x</i>	<i>x</i>	0	0	1	1	0	0	1	0
175	Phillipstown, White	1939	20	0	<i>y</i>	<i>y</i>	0	0	2	2	0	0	2	0
176			10	0	<i>x</i>	<i>x</i>	0	0	1	1	0	0	1	0
177			10	0	<i>x</i>	<i>x</i>	0	0	1	1	0	0	1	0
178	Stokes, White	1939	140	0	60,000	60,000	0	0	7	7	0	0	7	0
179	Storms, White	1939	510	30	31,000	31,000	<i>x</i>	<i>x</i>	17	17	0	0	14	3
180	Total for fields after ²⁴ Jan. 1, 1937		53,190	1,050	113,548,000	90,299,000	1,065.1	963.7	5,089	2,906	47	28	4,979	35
181	Total for Illinois ²⁵		151,285	16,835	551,298,000	94,302,000	3,435.9	977.3	25,706	2,970	421	551	18,194	41

²³ Abandoned 1939.²⁴ Total of lines 86 to 179 inclusive.²⁵ Total of lines 85 and 180.

TABLE 2.—*Wildcat Wells Drilled in 1939*

No.	County	Location			Total Depth (Feet)	Deepest Horizon Tested	Drilled By	Farm Name	Remarks
		Sec. Survey	Twp. Lat.	Rge. Long.					
1	Adams	28	2 N	7 W	850	St. Peter	W. R. Wilson et al, Adams No. 1		Dry
2	Adams	12	2 N	5 W	1,003	Ordovician	L. C. Robinson et al, W. C. Fowler No. 1		Dry
3	Bond	13	4 N	2 W	1,520	Ste. Genevieve	Joe Kest, Jr. et al, Albert Meyer No. 1		Dry
4	Bond	3	6 N	3 W	2,430	Devonian	Reisig & Quisenberry, M. F. Wilderman No. 1		Dry
5	Bond	24	4 N	3 W	1,155	Bethel	Eason Oil Co., Joint Land Bank No. 1A		Dry
6	Bond	12	6 N	5 W	3,154	St. Peter	Joe Kest et al, Saathoff No. 1		Dry
7	Bond	6	4 N	4 W	2,108	Devonian	George Weinschel, C. Rickher No. 1		Dry
8	Bond	17	5 N	4 W	2,066	Devonian	H. L. Joly & Jenkins, White & Bane No. 1		Dry
9	Bond	21	5 N	3 W	2,456	Devonian	Jarvis Bros., Zebb No. 1		Dry
10	Brown	15	1 S	2 W	642	L. Mississippian	Ripley Oil Trust, P. Reich No. 1		Dry
11	Brown	9	1 S	2 W	744	"Trenton"	E. E. Goed et al, H. Hopke No. 1		Dry
12	Brown	15	1 S	2 W	605	"Niagara"	Chas. Measeley et al, V. Thomas No. 1		Dry
13	Brown	33	2 S	4 W	415	"Niagara"	J. W. Fairbairn, Newton No. 1		Dry
14	Champaign	31	18 N	8 E	1,120	Devonian	Sadorus Oil Co., Nogle No. 1		Dry
15	Champaign	10	17 N	10 E	1,780	"Trenton"	Sidney Oil & Gas Co., Chas. Wendling No. 1		Dry
16	Christian	1	14 N	1 W	2,260	Devonian	Oil Development Co., Post No. 1		Dry
17	Christian	10	13 N	1 W	1,185	Ste. Genevieve	Klerbolker & Heldt, G. T. Smith No. 1		Dry
18	Christian	13	11 N	1 W	1,405	Cypress	Meyer Marks, Ed Buhs No. 1		Dry
19	Clark	36	11 N	12 W	2,573	Devonian	Kingwood Oil Co., J. Miller No. 1		Dry
20	Clark	2	9 N	12 W	1,510	Ste. Genevieve	Breeding et al, C. Card No. 1		Dry
21	Clark	20	9 N	14 W	2,585	Devonian	Midwest Oil Co., Cole No. 1		Dry
22	Clark	20	9 N	14 W	1,027	L. Mississippian	E. R. Brann et al, J. F. Baughman No. 1		Dry
23	Clark	31	12 N	14 W	1,472	"Niagara"	Patmin et al, Drake No. 2		Dry
24	Clark	7	9 N	12 W	802	Pennsylvanian	Harry Dunn et al, Henry Medsker No. 1		Dry
25	Clark	6	11 N	11 W	875	Pennsylvanian	H. R. Shavely, S. M. Schoffield No. 1		Dry
26	Clark	17	9 N	13 W	730	Pennsylvanian	D. R. Gooch et al, Mable Davis No. 1		Dry
27	Clark	5	9 N	14 W	1,220	L. Mississippian	Paul Kull, Montgomery No. 1		Dry

28	Clark	14	11 N	14 W	2, 732	"Trenton"	Trenton Rock Oil Co., Black No. 1	Dry
29	Clark	14	11 N	14 W	501	Pennsylvanian	Trenton Rock Oil Co., Black No. 2	Dry
30	Clay	17	5 N	5 E	2, 383	Aux Vases	Dick Duncan, Liggett No. 1	Prod.*
31	Clay	6	5 N	5 E	2, 489	Ste. Genevieve	F. J. Sawright, Chas. Wilson No. 1	Dry
32	Clay	35	4 N	7 E	3, 140	St. Louis	Gulf Refining Co., Palmer No. 1	Dry
33	Clay	21	5 N	5 E	2, 540	Ste. Genevieve	Burnett et al, Smith No. 1	Dry
34	Clay	26	5 N	5 E	2, 685	St. Louis	Kingwood-Gulf, Davis No. 1	Dry
35	Clay	5	2 N	6 E	3, 361	St. Louis	W. Beel, Tackett No. 1	Dry
36	Clay	21	5 N	5 E	2, 393	Aux Vases	D. Burnett, R. E. Smith No. 1	Dry
37	Clay	11	5 N	6 E	3, 078	St. Louis	Kingwood-Continental, Van Dyke No. 1	Dry
38	Clay	18	5 N	7 E	3, 007	Ste. Genevieve	Fred Kroger, Chaney No. 1	Dry
39	Clay	9	5 N	5 E	2, 507	Ste. Genevieve	Taylor Drilling Co., Muilberger No. 1	Dry
40	Clay	6	5 N	5 E	2, 552	Ste. Genevieve	F. J. Sawright, Wilson No. 1	Dry
41	Clay	22	5 N	7 E	2, 983	Ste. Genevieve	Phillips Petroleum Co., Murvin No. 1	Dry
42	Clay	21	5 N	5 E	2, 340	Aux Vases	Riley et al, Smith No. 1	Dry
43	Clay	23	5 N	5 E	2, 474	Ste. Genevieve	Minerva Oil Co., John Smith No. 1	Dry
44	Clay	14	3 N	7 E	3, 067	Ste. Genevieve	Pyramid Petroleum Corp., Slaser No. 1	Dry
45	Clay	13	3 N	7 E	3, 018	Ste. Genevieve	J. W. Leonard, C. O. Roley No. 1	Dry
46	Clay	7	2 N	5 E	3, 015	Ste. Genevieve	Robinson et al, Bryant No. 1	Dry
47	Clinton	3	2 N	2 W	835	Pennsylvanian	H. Flannery, Charles Gerdes No. 1	Dry
48	Clinton	9	1 N	3 W	1, 071	Bethel	Norton & McWilliams, Athoff No. 1	Dry
49	Clinton	11	3 N	3 W	1, 170	Bethel	Noelkemper et al, C. M. Kile No. 1	Dry
50	Clinton	12	3 N	3 W	1, 187	Bethel	Joe Kest et al, Ernest Mailbaum No. 1	Dry
51	Clinton	34	3 N	4 W	1, 212	Ste. Genevieve	Lindsey Bros. & British American, Boenhoff No. 1	Dry
52	Clinton	26	2 N	1 W	1, 467	Renault	W. C. McBride, A. Keister No. 1	Dry
53	Clinton	17	2 N	2 W	1, 243	Bethel	Petroleum Service Ltd, V. Bott No. 1	Dry
54	Clinton	20	1 N	1 W	1, 645	Ste. Genevieve	T. Palmer, A. & E. Bierman No. 1	Dry
55	Clinton	12	1 N	2 W	1, 600	St. Louis	Webb, Neal et al, William Husman No. 1	Dry
56	Clinton	18	1 S	5 W	1, 271	Ste. Genevieve	Harris et al, Hage No. 1	Dry
57	Clinton	12	3 N	1 W	1, 707	Ste. Genevieve	O. W. Burroughs, C. A. Adams No. 1	Dry
58	Clinton	3	1 N	2 W	1, 325	Bethel	Whitcher Development Co., F. C. Monken No. 1	Dry
59	Clinton	12	2 N	4 W	1, 302	Bethel	Elmer Goldschmidt, Burger No. 1	Dry
60	Clinton	2	1 N	2 W	1, 329	Bethel	Bell Oil Co., H. Knolhoff No. 1	Prod.*
61	Clinton	4	1 S	5 W	1, 095	Ste. Genevieve	J. J. Lynn et al, Western Catholic Union No. 1	Dry
62	Coles	22	11 N	10 E	538	Pennsylvanian	W. R. Miller, Griffin No. 1	Prod.*
63	Coles	22	13 N	7 E	3, 222	Devonian	Texas, Tracy No. 1	Dry
64	Coles	30	13 N	8 E	3, 399	Devonian	Kingwood Oil & Gas Co., Tivnen No. 1	Dry

* Discovery well of new pool or extensions; see table 5.

TABLE 2.—(Continued)

No.	County	Location			Total Depth (Feet)	Deepest Horizon Tested	Drilled By	Farm Name	Remarks
		Sec. Survey	Twp. Lat.	Rge. Long.					
65	Coles	4	13 N	14 W	525	Pennsylvanian	Phillips & Kost, Wilson No. 1		Dry
66	Coles	1	11 N	7 E	1,919	Cypress	Wheeles & Whisenant, Michael No. 1		Prod.*
67	Coles	2	11 N	7 E	3,307	Devonian	Wheeles & Whisenant, Michael No. 2		Dry
68	Coles	3	12 N	8 E	2,158	Bethel	Texas Canadian, Miller No. 1		Dry
69	Coles	21	11 N	10 E	825	Pennsylvanian	W. R. Miller, Stull No. 1		Dry
70	Coles	12	12 N	8 E	2,356	St. Louis	Dee Brother, Emma James No. 1		Dry
71	Coles	1	11 N	7 E	1,884	Cypress	Carter Oil Co., Akers No. 1		Dry
72	Coles	18	12 N	14 W	603	Ste. Genevieve	L. Trulock et al, Trulock No. 1		Dry
73	Coles	16	11 N	10 E	743	Pennsylvanian	Perry Miller, A. S. Ingram No. 1		Dry
74	Coles	28	12 N	7 E	2,318	St. Louis	Marvin et al, J. H. Bell No. 1		Dry
75	Coles	24	11 N	10 E	650	Pennsylvanian	Daugherty & Dunn, J. F. Mitchell No. 1		Dry
76	Cook	2	42 N	12 E	210	"Niagaran"	Crane et al, Wulf No. 1		Dry
77	Crawford	2	5 N	14 W	2,664	Ste. Genevieve	Denver Producers & Refiners, Kerst White No. 1		Dry
78	Crawford	7	8 N	13 W	1,385	Ste. Genevieve	Soard Oil Co., Snyder No. 1		Dry
79	Crawford	31	8 N	11 W	1,400	Chester	Shavely et al, Hostattler No. 1		Dry
80	Crawford	23	7 N	11 W	2,960	"Niagaran"	Kingwood Oil Co., Walker No. 1		Dry
81	Cumberland	7	9 N	7 E	2,485	Ste. Genevieve	O. J. Marshall, Baker No. 1		Dry
82	Cumberland	15	10 N	7 E	2,050	Lower Chester	Paul Doran et al, H. Haskett No. 1		Dry
83	Cumberland	21	10 N	7 E	2,326	Ste. Genevieve	Jarvis Brothers, Wilson Estate No. 1		Dry
84	Cumberland	17	9 N	9 E	2,152	Tar Springs	National Consumers, H. Ward No. 1		Dry
85	Cumberland	29	9 N	9 E	4,112	Devonian	Union Producing Co., Cox No. 1		Dry
86	Douglas	33	16 N	9 E	527	Pennsylvanian	Lowellen & Phyllips, Kennedy Bros No. 1		Dry
87	Douglas	33	16 N	9 E	401	Pennsylvanian	Black & Moore, Sturgell No. 1		Dry
88	Edgar	12	12 N	11 W	2,028	Devonian	Rabe & Henderson, Sarah Wait No. 1		Dry
89	Edgar	16	12 N	13 W	727	Ste. Genevieve	A. M. Myers, Brinkerhoff No. 1A		Dry
90	Edgar	26	13 N	13 W	1,970	"Niagaran"	Burkett, Danton & Burns, W. J. Baum No. 1		Dry
91	Edgar	12	16 N	14 W	610	L. Mississippian	Dr. Phillips, Emma Six No. 1		Dry
92	Edgar	13	14 N	14 W	266	Pennsylvanian			Dry

93	Edgar	24	14 N	14 W	261	Pennsylvanian	Sanders et al, Weaver No. 1	Dry
94	Edgar	11	13 N	13 W	1,920	Devonian	M. Weager, H. Wannah No. 1	Dry
95	Edgar	29	13 N	13 W	1,620	Devonian	A. M. Meyers, Schneider No. 1	Dry
96	Edgar	24	14 N	14 W	298	Pennsylvanian	Sanders & Walton, Weaver No. 2	Dry
97	Edwards	20	1 N	14 W	3,404	L. Mississippian	Owens & Kimbrey, Ira B. Hanson No. 1	Dry
98	Edwards	11	1 S	10 E	4,101	L. Mississippian	Leach Brothers, Albert Lee No. 1	Dry
99	Edwards	13	2 S	10 E	3,350	Ste. Genevieve	Morrison & Noah, Stafford No. 1	Dry
100	Edwards	22	2 S	10 E	3,373	Ste. Genevieve	Ohio Oil Co., Ben Edge No. 1	Dry
101	Edwards	4	1 N	14 W	3,185	Ste. Genevieve	Dye et al, Chas. Lemke No. 1	Dry
102	Edwards	22	2 S	14 W	3,082	Ste. Genevieve	H. K. Riddle, Fred Schroeder No. 1	Dry
103	Edwards	34	2 S	14 W	3,075	Ste. Genevieve	Wagoner & Schruver, Siebert No. 1	Dry
104	Edwards	10	3 S	14 W	2,648	Cypress	John Pugh, L. V. Smith No. 1	Dry
105	Edwards	11	1 S	10 E	3,392	Ste. Genevieve	Roach & Voyles, A. Lee No. 2	Dry
106	Edwards	31	2 S	14 W	3,175	Ste. Genevieve	Longhorn Oil Co., Mary Kroft No. 1	Dry
107	Edwards	34	2 S	14 W	2,658	Cypress	Howell & Metzner, G. Broster No. 1	Dry
108	Edwards	34	2 S	14 W	3,082	Golconda	Howell & Politis, G. Broster No. 1B	Dry
109	Edwards	33	1 S	14 W	3,098	Ste. Genevieve	H. Thorpe, Broster No. 1	Dry
110	Edwards	15	3 S	10 E	3,374	Ste. Genevieve	Noah-Morrison, W. Brown No. 1	Dry
111	Edwards	34	2 S	14 W	2,643	Cypress	C. G. McFadden, Bump No. 1	Prod.*
112	Edwards	18	3 S	11 E	3,269	McClosky	Kingwood Oil Co., Johnson No. 1	Prod.*
113	Edwards	17	1 S	14 W	3,151	St. Louis	Anderson & Broadus, G. Harms No. 1	Dry
114	Edwards	21	6 N	6 E	2,955	St. Louis	Kingwood Oil Co., Reichhelm No. 1	Dry
115	Effingham	13	7 N	5 E	2,990	Ste. Genevieve	Gassman et al, William Wagner No. 1	Dry
116	Effingham	27	6 N	4 E	2,467	St. Louis	Kingwood Oil Co., Casey No. 1	Dry
117	Effingham	18	8 N	4 E	1,697	Cypress	Gordon Hauck, Morhead No. 1	Dry
118	Effingham	18	8 N	6 E	2,566	St. Louis	Kingwood Oil Co., Koester No. 1	Dry
119	Effingham	23	8 N	6 E	2,511	Ste. Genevieve	Whisenant et al, Webber No. 1	Dry
120	Effingham	26	7 N	7 E	2,890	Ste. Genevieve	T. P. Henry et al, Miller No. 1	Dry
121	Effingham	17	7 N	7 E	2,990	St. Louis	Kingwood & Continental, H. Niernerg No. 1	Dry
122	Effingham	8	6 N	5 E	2,500	Cypress	M. M. Downing et al, H. Alwerdt No. 1	Dry
123	Effingham	31	6 N	5 E	2,939	Ste. Genevieve	F. Searwright, F. Wilson No. 1	Dry
124	Effingham	31	8 N	7 E	2,853	Ste. Genevieve	Phillips Petroleum Co., F. Overbeck No. 1	Dry
125	Effingham	10	6 N	5 E	2,553	"McClosky"	Minerva Oil Co., C. M. Reed Estate No. 1	Dry
126	Effingham	29	6 N	7 E	2,910	"McClosky"	P. Doran, Poehler No. 1	Dry
127	Fayette	8	5 N	3 E	1,827	Lower Chester	Union Products Co., Mahon No. 1	Dry
128	Fayette	8	7 N	1 E	1,900	Fredonia	R. J. Reink et al, Pummill No. 1	Dry
129	Fayette	2	4 N	1 W	1,460	Aux Vases	Palacine Oil Co., Adolph Mueller No. 1	Dry

* Discovery well of new pool or extensions; see table 5.

TABLE 2.—(Continued)

No.	County	Location			Total Depth (Feet)	Deepest Horizon Tested	Drilled By	Farm Name	Remarks
		Sec. Survey	Twp. Lat.	Rge. Long.					
130	Fayette	28	5 N	2 E	1,903	Cypress	George Parker, Mary Lange No. 1		Dry
131	Fayette	7	5 N	1 W	1,472	Ste. Genevieve	Bruce Martin et al, Davis No. 1		Dry
132	Fayette	11	5 N	2 E	1,817	Cypress	Schriber & Martin, Magnus No. 1		Dry
133	Fayette	24	6 N	2 E	1,822	Bethel	L. & G. Oil Co., Stewart No. 1		Dry
134	Fayette	31	5 N	4 E	2,418	Ste. Genevieve	Garnier et al, C. T. Wade No. 1		Dry
135	Fayette	19	6 N	1 E	1,794	Ste. Genevieve	C. E. Lange et al, J. C. Bloom No. 1		Dry
136	Fayette	24	4 N	1 W	1,432	Stray	Max Conrey, Roy Malan No. 1		Dry
137	Fayette	24	6 N	3 E	1,982	Lower Chester	Lee Drilling Co., Stine No. 1		Dry
138	Fayette	13	5 N	2 E	2,124	Ste. Genevieve	Powell & McClary, Wallin No. 1		Dry
139	Fayette	17	6 N	3 E	2,017	Ste. Genevieve	Central States Oil Co., Sperry No. 1		Dry
140	Fayette	29	7 N	1 W	1,492	Ste. Genevieve	J. Hausman et al, J. Neathery No. 1		Dry
141	Franklin	20	6 S	4 E	3,435	St. Louis	Gulf Refining Co., U. S. Steel No. 1		Dry
142	Franklin	19	5 S	2 E	4,688	Devonian	Adams Oil & Gas Co., Old Ben Coal Co. No. 1		Dry
143	Franklin	19	5 S	3 E	3,068	St. Louis	Gulf Refining Co., E. B. Hinman No. 1		Prod. *
144	Franklin	4	5 S	2 E	3,097	St. Louis	Palatine Oil Co., Old Ben Coal Co. No. 1		Dry
145	Franklin	26	6 S	3 E	2,979	Aux Vases	M. & G. Drilling Co., Franklin Realty Co. No. 1		Dry
146	Franklin	26	5 S	1 E	3,101	St. Louis	W. R. Hayes, Old Ben Coal Co. No. 1		Dry
147	Franklin	21	6 S	2 E	3,000	St. Louis	E. S. Atkins, Old Ben Coal Co. No. 1		Dry
148	Franklin	32	5 S	3 E	4,810	Devonian	Gulf Refining Co., U. S. Fuel Co. No. 2		Dry
149	Fulton	12	7 N	1 E	758	Devonian	Independent Producers & Refiners, Bernhard No. 1		Dry
150	Fulton	10	7 N	1 E	590	Devonian	K. & F. Development Co., Kelly Frederick No. 1		Dry
151	Fulton	3	7 N	1 E	751	Devonian	Spiker, Fee No. 1		Dry
152	Gallatin	2	8 S	10 E	346	Pennsylvanian	J. C. Miller et al, Big Barn No. 1A		Dry
153	Gallatin	11	8 S	10 E	610	Pennsylvanian	J. C. Miller et al, Big Barn No. 1B		Dry
154	Gallatin	9	9 S	9 E	2,795	Ste. Genevieve	Delta Drilling Co., Stenson No. 1		Dry
155	Gallatin	21	8 S	8 E	2,980	St. Louis	Northfork Oil Co., Dr. H. Logan No. 1		Dry
156	Gallatin	5	8 S	10 E	3,010	St. Louis	J. Garfield Buell, Sutton No. 1		Dry
157	Gallatin	4	10 S	8 E	2,750	Ste. Genevieve	Dillon et al, Carol Frohoeck No. 1		Dry

TABLE 2.—(Continued.)

No.	County	Location			Total Depth (Feet)	Deepest Horizon Tested	Drilled By	Farm Name	Remarks
		Sec. Survey	Twp. Lat.	Rgc. Long.					
193	Jefferson	30	4 S	2 E	3,101	St. Louis	Pyramid Petroleum Co., Inland Steel Co. No. 1		Dry
194	Jefferson	25	2 S	2 E	2,849	Ste. Genevieve	M. B. Armer et al, Paul Gilbert No. 1		Dry
195	Jefferson	18	3 S	4 E	3,204	St. Louis	Kingwood Oil Co., C. E. Cook No. 1		Dry
196	Jefferson	23	2 S	1 E	2,342	Ste. Genevieve	W. R. Curry, H. H. Peterson No. 1		Dry
197	Jefferson	32	3 S	2 E	2,903	St. Louis	Shell Oil Co., Jefferson Oil & Gas Co. No. 1		Dry
198	Jefferson	16	2 S	1 E	2,279	"McClosky"	Transcontinental Oil Co., Carroll No. 1		Dry
199	Jefferson	5	2 S	2 E	2,350	"McClosky"	McQueen et al, Sorensen No. 1		Dry
200	Jefferson	19	2 S	1 E	2,365	Ste. Genevieve	Wiser Oil Co., Severs No. 1		Dry
201	Jefferson	9	1 S	1 E	2,084	Bethel	Vawder, Kell No. 1		Prod.*
202	Jefferson	23	4 S	2 E	3,105	St. Louis	Alma Oil Co., Jefferson Oil & Gas Co. No. 1		Dry
203	Jefferson	25	2 S	1 E	3,937	Devonian	Shell Oil Co., Ragan No. 1		Dry
204	Jefferson	21	2 S	4 E	3,095	Ste. Genevieve	Yingling & Hays, Woods No. 1		Dry
205	Jefferson	34	3 S	3 E	3,046	St. Louis	Oils, Incorporated, Mace No. 1		Dry
206	Jefferson	36	4 S	1 E	3,167	St. Louis	S. L. Reinhardt, Inland Steel Co. No. 1		Dry
207	Jefferson	10	1 S	1 E	2,113	Bethel	S. W. McGee, E. E. Holloway No. 1		Dry
208	Jersey	27	8 N	10 W	1,802	St. Peter	E. M. Gould, Pearce No. 1		Dry
209	Johnson	22	12 S	2 E	1,747	Salem	Coates et al, Albright No. 1		Dry
210	Knox	9	11 N	2 E	800	Ordovician	O. H. Hamer, H. Bragg No. 1		Dry
211	Lawrence	21	2 N	13 W	2,911	St. Louis	Strine et al, Howard Corrie No. 1		Dry
212	Lawrence	19	3 N	11 W	500	Pennsylvanian	Ketchem & Wilson, R. A. Ackman No. 1		Dry
213	Lawrence	32	3 N	12 W	2,280	Ste. Genevieve	Edward Gieck, Harry Gutteridge No. 2		Dry
214	Lawrence	8	4 N	10 W	1,070	Pottsville	Mark et al, White No. 1		Dry
215	Lawrence	22	3 N	11 W	3,576	Devonian	Harris et al, Downey No. 1		Dry
216	Lawrence	24	4 N	11 W	1,771	Weiler	Joe Kcsal et al, Grace Gillespie No. 3		Dry
217	Lawrence	21	2 N	13 W	2,770	Aux Vases	Ann Bell Oil Co., Wright No. 1		Dry
218	Lawrence	15	2 N	13 W	2,769	St. Louis	Ann Bell Oil Co., M. Wright No. 1		Dry
219	Lawrence	8	4 N	10 W	1,131	Buchanan	Kentucky Natural Gas Co., Carpenter-Bryans No. 1		Dry

28	4 N	11 W	2,520	L. Mississippi	Walter Payne, Patrick Bros. No. 1	Dry
3	30 N	6 E	1,530	Jordan	Kitchell & Fredenhagen, McWilliams No. 1	Dry
25	4 N	4 W	410	Hoing sand	Ketcherside & Fisher, S. Hunt No. 1	Dry
22	7 N	3 W	920	"Trenton"	H. O. Hammer, Casey Jones No. 1	Dry
22	5 N	3 W	677	"Niagara"	William Fruit, George Kruse No. 1	Dry
22	5 N	2 W	562	"Niagara"	DeKalb Hybrid Seed Co., John F. Welch No. 1	Dry
22	6 N	2 W	677	"Niagara"	L. G. Kellar, C. E. Wright No. 1	Dry
16	7 N	4 W	700	"Niagara"	Fowler, Hunter, & Cruise, E. Stoneking No. 1	Dry
34	4 N	3 W	2 E	"Trenton"	Decatur Oil & Gas Co., L. W. Cook No. 1	Dry
21	15 N	2 E	3,175	"Trenton"	Snake Hill Development Co., John Dipper No. 1	Dry
17	16 N	2 E	2,125	Silurian	Perry Hazelett, Wetzel No. 1	Dry
12	5 N	6 W	1,916	Devonian	Penn-Illinois Oil Co., Hurlbrink No. 1	Dry
19	4 N	8 W	1,415	Devonian	Lambert et al, Brookmyer No. 1	Dry
8	3 N	8 W	1,394	"Niagara"	Dr. E. L. Loper, F. Keller No. 1	Dry
8	3 N	8 W	1,368	Devonian-Silurian	Bill Morgan et al, Niggli No. 1	Dry
2	3 N	5 W	1,092	St. Louis	Erie Drilling Co., Kaseburg No. 1	Dry
2	3 N	9 W	1,600	"Trenton"	Fred Cory, J. Hassel No. 1	Dry
11	3 N	9 W	1,935	"Trenton"	Hansky et al, C. Yoos No. 1	Dry
6	1 N	1 E	1,170	B. Pennsylvanian	F. W. Firman, Suggs No. 1	Dry
11	2 N	1 E	2,150	Ste. Genevieve	Oil Royalties, Ltd., Suggs-Meeker No. 1	Dry
11	2 N	1 E	1,745	Lower Chester	Chicago Syndicate, Williams No. 1	Dry
36	1 N	2 E	2,409	Ste. Genevieve	Kingwood Oil Co., Loomis No. 1	Dry
31	3 N	2 E	2,349	St. Louis	John Q. Gill, J. A. Broom No. 1	Dry
5	3 N	3 E	2,480	Fredonia	Hawley Oil & Gas, Coppel No. 1	Dry
28	1 N	1 E	2,283	Ste. Genevieve	Johnson & Betts, Johnson No. 1	Dry
32	1 N	1 E	1,923	Bethel	Heenan-Coe, Millican No. 1	Dry
16	3 N	4 E	2,556	St. Louis	Hordman et al, D. Hess No. 1	Dry
19	1 N	2 E	2,356	Ste. Genevieve	Menhall et al, Hazelwood No. 1	Dry
8	2 N	1 E	1,806	Ste. Genevieve	W. B. Dallas, & D. Shendel, Toulme No. 1	Dry
25	2 N	1 E	2,123	Ste. Genevieve	J. Lickey, Quick No. 1	Dry
35	3 N	1 E	2,050	Ste. Genevieve	Papoose Oil Co., J. I. Weems No. 1	Dry
20	1 N	4 E	2,990	St. Louis	Quisenbury, E. F. Hawkins No. 1	Dry
32	1 N	4 E	2,948	Ste. Genevieve	Pekin Oil & Gas Co., Vurell No. 1	Dry
31	2 N	3 E	2,415	Ste. Genevieve	Dorsey Hager, Bachman No. 1	Dry
34	4 N	2 E	2,075	Bethel	Kingwood-Romine, Fitzsimmons No. 1	Dry
35	2 N	2 E	2,301	Ste. Genevieve	Ed Hollmans, Bedwell No. 1	Dry
5	2 N	2 E	2,359	St. Louis	F. McCoy, McFadden No. 1	Dry
9	2 N	2 E	2,165	Ste. Genevieve		Dry

* Discovery well of new pool or extensions; see table 5.

TABLE 2.—(Continued)

No.	County	Location			Total Depth (Feet)	Deepest Horizon Tested	Drilled By	Farm Name	Remarks
		Sec. Survey	Twp. Lat.	Rge. Long.					
257	Marion	13	3 N	2 E	2,509	Ste. Genevieve	N. Easley, Humes No. 1		Dry
258	Marion	21	4 N	4 E	2,419	Ste. Genevieve	T. P. Henry et al, H. Balke No. 1		Dry
259	Marion	18	3 N	1 E	1,439	Bethel	Shell Oil Co., Lutz No. 1		Prod. *
260	Marion	33	3 N	2 E	2,193	Ste. Genevieve	Harvey et al, Mercantile Bank No. 1		Prod. *
261	Marion	3	1 N	1 E	2,021	Ste. Genevieve	Jay Lickey et al, Adams No. 1		Dry
262	Marion	4	1 N	1 E	1,860	Cypress	Wallace-Wright et al, Bryant No. 1		Dry
263	Marion	11	1 N	2 E	2,277	"McClosky"	Steele, Foster No. 1		Dry
264	Marion	10	2 N	1 E	3,369	Devonian	Dunn et al, Meredith No. 1		Dry
265	Marion	6	2 N	3 E	2,430	"McClosky"	Ewing et al, McMackin No. 1		Dry
266	Marion	20	3 N	1 E	3,100	Devonian	W. F. Keeley, Mason No. 1		Dry
267	Marion	20	3 N	1 E	1,580	Bethel	Centralia Refining Co., Henning No. 1		Dry
268	Marion	4	1 N	1 E	3,344	Chattanooga	Hawley Oil Co., Bryant No. 1		Dry
269	Marion	1	4 N	4 E	2,692	"McClosky"	Dunbar & Winbale, Franze No. 1		Dry
270	Monroe	14	2 S	10 W	533	"Trenton"	Crittendon & Noelkemper, Schroeder No. 1		Dry
271	Monroe	19	1 S	10 W	910	Ordovician	J. E. Cummings, J. H. Boyer No. 1		Dry
272	Monroe	1	3 S	11 W	750	Ordovician	Bender, Mentel No. 1		Dry
273	Monroe	11	2 S	11 W	1,364	Ordovician	J. Kest et al, A. Schmidt No. 1		Dry
274	Monroe	3	3 S	11 W	750	Ordovician	Columbia Quarry Co., Fee No. 1		Dry
275	Monroe	1,645†	2 S	10 W	576	"Trenton"	Chas. Judd, O. Kolmer No. 1		Dry
276	Monroe	1,645†	2 S	9 W	275	L. Mississippian	Remington, Kolmer No. 2		Dry
277	Monroe	11	3 S	9 W	1,120	Ordovician	Jack Stewart et al, E. Hadey No. 1		Dry
278	Montgomery	8	8 N	5 W	823	St. Louis	Erie Drilling Co., Schroeder No. 1		Dry
279	Montgomery	23	12 N	5 W	2,334	"Trenton"	W. O. Allen, Ward No. 1		Dry
280	Montgomery	31	9 N	4 W	871	L. Mississippian	Fred DeMier, Charles, Kanaday No. 1		Dry
281	Montgomery	34	10 N	2 W	2,675	Devonian	Cassens et al, Wilkening No. 1		Dry
282	Montgomery	7	7 N	2 W	750	Pennsylvanian	R. E. Johnston, Fuller No. 1		Dry
283	Montgomery	11	7 N	3 W	1,065	L. Mississippian	Soliday & Sands, Moon No. 1		Dry
284	Montgomery	16	10 N	1 W	1,800	Ste. Genevieve	Swords & McDougal, Brewner No. 1		Dry

285	Montgomery	29	10 N	4 W	527	Pennsylvanian	Marhill, Doyle No. 1	Dry
286	Montgomery	4	9 N	3 W	2, 106	Salem	Jack S. Brown, C. W. Hefley No. 1	Dry
287	Morgan	18	13 N	8 W	1, 160	Devonian	Underwriters Oil Syndicate, W. H. Diller No. 1	Dry
288	Moultrie	29	13 N	5 E	3, 262	Devonian	Seaboard Oil Co., Day Horn No. 1	Dry
289	Moultrie	9	13 N	6 E	1, 950	Ste. Genevieve	Seaboard Oil Co., Purvis No. 1	Dry
290	Moultrie	29	15 N	5 E	1, 773	Ste. Genevieve	George Anderson, Ulrich No. 1	Dry
291	Moultrie	29	15 N	5 E	1, 887	St. Louis	Signal Hill Oil Co., E. L. Beale No. 1	Dry
292	Peoria	27	8 N	5 E	1, 560	St. Peter	Algona Oil Co., Cramer No. 1	Dry
293	Perry	8	4 S	3 W	1, 630	St. Louis	Lundy & Winkler, Stern No. 1	Dry
294	Perry	19	4 S	3 W	1, 571	Ste. Genevieve	Sooner Production Co., Harska No. 1	Dry
295	Perry	13	4 S	2 W	1, 610	St. Louis	G. H. Blankenship, Ruthkowski No. 1	Dry
296	Perry	4	4 S	1 W	1, 275	Weiler	W. R. Hayes et al., H. & F. Collins No. 1	Dry
297	Perry	34	4 S	2 W	830	Menard	Stephens & Ward, Albers No. 1	Dry
298	Perry	3	6 S	4 W	1, 350	Bethel	C. H. Blankenship, Rhemecker No. 1	Dry
299	Perry	17	4 S	1 W	1, 703	St. Louis	Kingwood Oil Co., Broleman No. 1	Dry
300	Perry	29	4 S	1 W	1, 385	Bethel	J. J. Brodie et al., Roundtree No. 1	Dry
301	Perry	34	4 S	3 W	1, 619	Ste. Genevieve	Pres. Cockran, Geacom No. 1	Dry
302	Perry	33	5 S	4 W	1, 400	Ste. Genevieve	E. J. Shaefer, F. Sprague No. 1	Dry
303	Perry	8	4 S	1 W	1, 604	Ste. Genevieve	C. E. Watson et al., Thomas Clay No. 1	Dry
304	Perry	25	5 S	2 W	1, 613	St. Louis	E. S. Atkins, Tuax-Traer Coal Co. No. 1	Dry
305	Perry	5	5 S	3 W	1, 610	L. Mississippian	Gilliam et al., Brostmeier No. 1	Dry
306	Perry	13	5 S	2 W	1, 582	Ste. Genevieve	L. C. Swimmel, Kinsey No. 1	Dry
307	Perry	35	5 S	3 W	1, 665	Ste. Genevieve	Cockran et al., Pyramid Coal Co. No. 1	Dry
308	Pike	5	3 S	4 W	1, 925	Ordovician	Apex Drilling Co., Weaver No. 1	Dry
309	Pike	4	3 S	4 W	427	"Niagaran"	Floyd A. Sargeant, A. Newton No. 1	Dry
310	Randolph	31	4 S	5 W	1, 251	St. Louis	Leon Beattie et al., Smiley No. 1	Dry
311	Randolph	27	6 S	6 W	2, 305	"Trenton"	Badger Oil & Gas Co., Schrader No. 1	Dry
312	Randolph	12	4 S	6 W	1, 340	Salem	Hamlin et al., Albert Anderson No. 1	Dry
313	Randolph	19	4 S	7 W	1, 810	Ordovician	Dr. Seward, Henry Rehmer No. 1	Dry
314	Randolph	5	7 S	5 W	1, 200	L. Mississippian	Ben Banner, Evers No. 1	Dry
315	Randolph	7	6 S	5 W	1, 640	St. Louis	Alvin Fisher, Uchtman No. 1	Dry
316	Richland	3	2 N	14 W	3, 175	Ste. Genevieve	Kingwood Oil Co., Provine No. 1	Dry
317	Richland	22	2 N	14 W	3, 062	Ste. Genevieve	A. C. Leathers et al., A. Yonaka No. 1	Dry
318	Richland	13	3 N	9 E	3, 094	Ste. Genevieve	Kitchen & Wilson, R. E. Wilson No. 1	Dry
319	Richland	21	3 N	14 W	2, 585	Tar Springs	Leathers et al., Roy Malone No. 1	Dry
320	Richland	2	4 N	9 E	3, 052	Ste. Genevieve	Pure Oil Co., Lilly J. Coen No. 1	Dry
321	Richland	36	5 N	9 E	2, 930	Ste. Genevieve	Pure Oil Co., H. C. Coen No. 1	Prod.*

* Discovery well of new pool or extensions; see table 5.

TABLE 2.—(Continued)

No.	County	Location			Total Depth (Feet)	Deepest Horizon Tested	Drilled By	Farm Name	Remarks
		Sec. Survey	Twp. Lat.	Rge. Long.					
322	Riehlard	29	5 N	10 E	3,117	Ste. Genevieve	Pure Oil Co., Bartlett No. 1		Dry
323	Riehlard	30	5 N	10 E	3,456	Salem	Pure Oil Co., M. Heak No. 1		Dry
324	St. Clair	31	1 S	7 W	1,962	"Trenton"	Paul Moseback, J. C. Miller No. 1		Dry
325	St. Clair	31	1 N	8 W	1,615	"Trenton"	A. H. Emehiser, A. Alberts No. 1		Dry
326	St. Clair	7	1 N	6 W	2,252	Silurian	Algona Petroleum Co., Muehler No. 1		Dry
327	St. Clair	10	1 S	10 W	837	"Trenton"	Williams et al, Columbia Quarry No. 1		Dry
328	St. Clair	35	1 N	10 W	630	Ordovician	Gladiator Oil Co., C. Hoffstetter No. 1		Dry
329	St. Clair	23	2 N	6 W	1,925	Devonian	Matches & Leach, Bear No. 1		Dry
330	St. Clair	29	2 S	7 W	1,365	Silurian	Tanner & Melburne, Miller Estate No. 1		Dry
331	St. Clair	2	1 N	6 W	1,050	L. Mississippian	L. W. Pennington & Dunn, Henry Schoene No. 1		Dry
332	St. Clair	32	2 N	7 W	1,734	Devonian	Dr. James McLain, J. F. McNulty No. 1		Dry
333	St. Clair	13	3 S	7 W	1,710	Devonian	Carnegy et al, W. A. Winter No. 1		Dry
334	St. Clair	34	2 S	6 W	2,614	"Trenton"	Oil Exploration Co., Wickler No. 1		Dry
335	Saline	5	8 S	7 E	1,405	Pennsylvanian	Dr. I. W. Sigel et al, Choiser No. 1		Dry
336	Saline	25	9 S	7 E	2,712	Ste. Genevieve	Kingwood Oil Co., McIntyre No. 1		Dry
337	Saline	32	7 S	6 E	2,770	Cypress	Carpenter et al, Sloan No. 1		Dry
338	Saline	11	9 S	7 E	3,045	L. Mississippian	Kingwood Oil Co., Eybon Allyn No. 1		Dry
339	Saline	11	10 S	6 E	2,585	St. Louis	Kingwood Oil Co., J. Oliver No. 1		Dry
340	Saline	1	9 S	7 E	2,555	Cypress	T. D. Haypenny, M. W. Swinney No. 1		Dry
341	Sangamon	28	15 N	6 W	1,903	"Trenton"	A. C. Leathers, Workman No. 1		Dry
342	Sangamon	11	15 N	3 W	2,730	St. Peter	Millar, G. W. Sample No. 1		Dry
343	Schuyler	25	1 N	2 W	1,100	"Trenton"	Harry Schwartz, Chas. Thompson No. 1		Dry
344	Schuyler	2	3 N	3 W	678	Devonian-Silurian	Harry Muller, F. Fellheimer No. 1		Dry
345	Schuyler	28	1 N	2 W	877	"Trenton"	O. A. Reed, J. P. Long No. 1		Dry
346	Shelby	7	9 N	5 E	1,974	Bethel	Joe Aylward, E. E. Bickford No. 1		Dry
347	Shelby	34	10 N	5 E	697	Pennsylvanian	Frank Frederick et al, Fluge No. 1		Dry
348	Shelby	17	11 N	2 E	1,788	St. Louis	Independent Producers & Refiners, B. Derst No. 1		Dry
349	Shelby	9	11 N	4 E	2,068	Ste. Genevieve	D. J. Marshall, Harry Riley No. 1		Dry

350	Shelby	29	10 N	1 E	1,702	Ste. Genevieve	Harris et al, Skinner No. 1	Dry
351	Shelby	27	10 N	5 E	1,969	Aux Vases	J. A. Aylward, Wabash Railroad No. 1	Prod.*
352	Shelby	34	10 N	5 E	2,212	St. Louis	Adams & Gaskey, Fluge No. 1	Dry
353	Shelby	3	9 N	5 E	3,515	Devonian	Kingwood & Continental, Trueblood No. 1	Dry
354	Shelby	20	12 N	2 E	1,715	St. Louis	Independent Producers & Refiners, Hackenburg No. 1	Dry
355	Shelby	12	13 N	2 E	2,901	Devonian	Illcan Oil Corporation, Carr No. 1	Dry
356	Shelby	20	14 N	2 E	575	Pennsylvanian	Rex Developments, Inc., Oscar Odell No. 1	Dry
357	Shelby	6	12 N	3 E	1,803	Ste. Genevieve	Zephyr Drilling Co., Uriah M. Holmes No. 1	Dry
358	Shelby	15	9 N	6 E	2,452	Ste. Genevieve	Elmer Boseke, Zumbahlen No. 1	Dry
359	Shelby	7	10 N	4 E	2,454	Ste. Genevieve	Kingwood Oil Co., Howe No. 1	Dry
360	Shelby	9	10 N	4 E	1,993	Ste. Genevieve	Fletcher et al, Hellick & Willard No. 1	Dry
361	Shelby	20	10 N	6 E	2,330	St. Louis	Gulf Refining Co., C. A. Best No. 1	Dry
362	Shelby	12	9 N	6 E	2,411	Ste. Genevieve	J. Boseke Jr. et al, M. C. Bigler No. 1	Dry
363	Tazewell	2	22 N	3 W	2,310	St. Peter	Hopedale Oil & Gas Co., Litwiller No. 1	Dry
364	Tazewell	18	25 N	3 W	1,390	Maquoketa	Morton Oil & Gas Co., William Strunk No. 1	Dry
365	Wabash	2	1 N	12 W	1,985	Bridgeport	Cecil Keneipp, J. Kogan Heirs No. 1	Dry
366	Wabash	28	1 N	12 W	2,347	Ste. Genevieve	Taylor Drilling Co., Schafer No. 1	Dry
367	Wabash	35	2 N	12 W	1,400	Pennsylvanian	Hoffman, Clyde King No. 2	Dry
368	Wabash	18	2 S	13 W	2,830	Ste. Genevieve	Tide Water Associated Oil Co., Cowling No. 1	Dry
369	Wabash	15	3 S	14 W	3,058	St. Louis	Renwar Oil & Longhorn Oil Co., Edith B. Helm No. 1	Dry
370	Wabash	13	1 S	13 W	1,955	Tar Springs	Washburn, Pfeifer No. 1	Prod.*
371	Wabash	1	2 S	13 W	2,733	Ste. Genevieve	Al. Wilhelmi, Baird No. 1	Prod.*
372	Wabash	19	2 S	13 W	1,719	Pennsylvanian	W. M. Bartlett, C. J. Stansfield No. 1	Prod.*
373	Wabash	25	2 S	14 W	2,852	Ste. Genevieve	Continental Oil Co., Arthur E. Shultz No. 1	Dry
374	Wabash	30	1 S	13 W	2,976	Ste. Genevieve	Hughes et al, Tanquary No. 1	Dry
375	Wabash	9	2 S	13 W	2,424	Cypress	Z. D. Neff, Bump No. 1	Prod.*
376	Wabash	25	2 S	14 W	2,901	Ste. Genevieve	Mammoth Producers & Refiners, Wm. Dunn No. 1	Dry
377	Wabash	13	2 S	14 W	2,970	Ste. Genevieve	Oil Exploration Co., F. Boseker No. 1	Dry
378	Wabash	8	1 N	12 W	2,415	Ste. Genevieve	C. D. Neff, Waldo Litherland No. 1	Dry
379	Wabash	9	3 S	13 W	2,878	St. Louis	Choape & Cheney, Rosa Woodyard No. 1	Dry
380	Wabash	10	3 S	14 W	3,000	Ste. Genevieve	J. W. Carter et al, A. M. Sigert No. 1	Dry
381	Wabash	9	1 N	13 W	2,765	Ste. Genevieve	Fitzpatrick-Haves et al, Hinderliter No. 1	Dry
382	Wabash	10	2 S	13 W	2,495	Weiler	Dec Bros. et al, C. S. LeGier No. 1	Dry
383	Wabash	26	1 S	13 W	2,640	Ste. Genevieve	P. Wiggins, Sticker No. 1	Dry
384	Wabash	10	2 S	13 W	2,800	Ste. Genevieve	W. S. Tatum, Lovellette No. 1	Dry

* Discovery well of new pool or extensions; see table 5.

TABLE 2.—(Continued)

No.	County	Location			Total Depth (Feet)	Deepest Horizon Tested	Drilled By	Farm Name	Remarks
		Sec. Survey	Twp. Lat.	Rge. Long.					
385	Wabash	11	2 S	13 W	2,714	Ste. Genevieve	Marvel Oil Co., Beall No. 1		Prod.*
386	Wabash	33	2 S	13 W	510	Pennsylvanian	Jackson & Green, Garst No. 1		Dry
387	Warren	11	8 N	2 W	1,050	"Trenton"	John Memkin, Chas. Simmons No. 1		Dry
388	Washington	24	3 S	3 W	1,473	Ste. Genevieve	American Seismograph Co., Martin Leibrock No. 1		Dry
389	Washington	22	1 S	1 W	765	Pennsylvanian	Pitelford et al, Hafer No. 1		Dry
390	Washington	16	1 S	2 W	1,680	Chester	Shell Petroleum Corp., Hake No. 1		Dry
391	Washington	35	2 S	3 W	1,625	Ste. Genevieve	Taylor Drilling Co., Weihe No. 1		Dry
392	Washington	14	3 S	3 W	1,239	Bethel	G. H. Blankenship, J. L. Dennis No. 1		Prod.*
393	Washington	25	2 S	5 W	1,331	Fredonia	Jepp & Skidmore, Hoelcher No. 1		Dry
394	Washington	8	3 S	1 W	1,713	Ste. Genevieve	J. L. Henderson, Kornegger No. 1		Dry
395	Washington	15	2 S	1 W	1,880	Ste. Genevieve	Morgan & Deaton, D. W. Dawkins No. 1		Dry
396	Washington	2	3 S	3 W	1,379	Bethel	Pollack, Leibrock No. 1		Dry
397	Washington	16	3 S	3 W	1,380	Renault	Beavers et al, Saucy No. 1		Dry
398	Washington	28	3 S	3 W	1,339	Bethel	Wilson et al, Bergha Greenburg No. 1		Dry
399	Washington	35	3 S	3 W	1,310	Bethel	J. J. Broadus, Howard Chapman No. 1		Dry
400	Washington	32	3 S	4 W	2,567	Devonian	Phillips Petroleum Co., Hunleth No. 1		Dry
401	Washington	4	1 S	1 W	1,866	St. Louis	Gulf Refining Co., G. W. Baldwin No. 1		Dry
402	Washington	12	2 S	1 W	1,899	Ste. Genevieve	Zephyr Drilling Co., Dr. T. J. Long No. 1		Dry
403	Washington	10	2 S	4 W	1,355	L. Mississippian	Harry Harter, Flanaus No. 1		Dry
404	Washington	5	3 S	3 W	1,309	Bethel	J. N. Webster et al, Oexeman No. 1		Dry
405	Washington	10	3 S	3 W	1,305	Bethel	W. R. Curry, P. N. W. Krughoff No. 1		Dry
406	Washington	7	2 S	4 W	1,296	Aux Vases	Max Conrey, Joint Stock Land Bank No. 1		Dry
407	Washington	12	2 S	4 W	1,490	St. Louis	Ed Robinson et al, Brinkman No. 1		Dry
408	Washington	33	3 S	3 W	1,655	Ste. Genevieve	Amour et al, Newdecker No. 1		Dry
409	Washington	11	3 S	1 W	1,866	Ste. Genevieve	R. F. Jeter et al, J. Orlick No. 1		Dry
410	Washington	21	3 S	1 W	1,820	St. Louis	Comanche Oil Co., Zgonia No. 1		Dry
411	Washington	20	3 S	3 W	1,343	Bethel	C. E. Woldridge, Lyons No. 1		Dry
412	Washington	15	1 S	1 W	3,362	Devonian	Kingwood Oil Co., Brink No. 1		Dry

413	Washington	19	3 S	1 W	1,370	Bethel	Shell Oil Co., M. Dix No. 1	Prod.*
414	Washington	28	3 S	1 W	3,102	Devonian	J. Pugh Drilling Co., Kruger No. 1	Dry
415	Washington	23	1 S	1 W	1,592	Bethel	Chicago Syndicate, I. C. Railroad No. 1	Dry
416	Washington	19	3 S	1 W	511	Pennsylvanian	Hardman, Rozauski No. 1	Dry
417	Washington	33	3 S	1 W	1,348	Bethel	Armer et al, Norwick No. 1	Dry
418	Washington	8	3 S	2 W	1,666	St. Louis	Cochran, Kula No. 1	Dry
419	Wayne	10	1 S	6 E	3,300	St. Louis	St. Louis Syndicate, McLane No. 1	Dry
420	Wayne	8	2 S	8 E	3,357	Ste. Genevieve	F. R. Stoker, Blackburn No. 1	Dry
421	Wayne	21	2 N	7 E	3,172	Ste. Genevieve	Thompson Drilling Co., Briscoe No. 1	Dry
422	Wayne	27	2 S	8 E	3,409	"McClosky"	Carl Robinson, Felix No. 1	Prod.*
423	Wayne	16	3 S	5 E	3,402	Ste. Genevieve	Dr. Moore, Moore No. 1	Dry
424	Wayne	3	1 N	8 E	3,100	"McClosky"	Witcher Drilling Co., Fitch No. 1	Prod.*
425	Wayne	11	1 N	8 E	3,198	Ste. Genevieve	C. C. Harwell et al, Elson Fitch No. 1	Dry
426	Wayne	27	2 S	8 E	3,507	Ste. Genevieve	Weinert, Inc., Leslie Cunningham No. 1	Dry
427	Wayne	30	2 S	9 E	3,441	"McClosky"	New Penn Development Co., Wagner No. 1	Prod.*
428	Wayne	11	1 N	9 E	3,456	Ste. Genevieve	Kingwood Oil & Held, Gibbs No. 1	Dry
429	Wayne	28	2 S	8 E	3,450	Ste. Genevieve	H. H. Weinert, Inc., Cunningham No. 2	Dry
430	Wayne	28	2 S	6 E	3,402	Ste. Genevieve	Whitty et al, Duke No. 1	Dry
431	Wayne	7	3 S	9 E	3,423	Ste. Genevieve	Iroquois Oil & Gas Co., Winzenberger No. 1	Dry
432	Wayne	21	2 S	9 E	3,373	Ste. Genevieve	New Penn Development Co., J. E. Baker No. 1	Dry
433	Wayne	14	2 S	8 E	3,364	Ste. Genevieve	Earl Robinson, Leech No. 1	Dry
434	Wayne	15	2 S	8 E	3,360	Ste. Genevieve	Earl Robinson, Carter No. 1	Dry
435	Wayne	14	2 S	9 E	3,437	Ste. Genevieve	New Penn Development Co., C. A. French No. 1	Dry
436	Wayne	21	2 S	9 E	3,409	Cypress	Stengel, Earl Sheldon No. 1	Dry
437	Wayne	2	3 S	8 E	3,510	Ste. Genevieve	Ill. Mid Continent, Vaughn Heirs No. 1	Dry
438	Wayne	28	1 S	7 E	3,367	Ste. Genevieve	Ill. Mid Continent, Cope No. 1	Dry
439	Wayne	10	3 S	8 E	3,520	Ste. Genevieve	Pryor & McIntosh, Alva Simpson No. 1	Dry
440	Wayne	10	1 N	6 E	3,312	Ste. Genevieve	R. O. Harding, F. H. Simpson No. 1	Dry
441	Wayne	6	3 S	9 E	3,422	Ste. Genevieve	Hayes, Schneiderman & Soebbing, Murphy No. 1	Dry
442	Wayne	1	3 S	8 E	1,700	Pennsylvanian	Kenyon, G. T. Vaughn No. 1	Dry
443	Wayne	23	1 S	8 E	3,206	Ste. Genevieve	Cayuna Oil Co., Brough No. 1	Prod.*
444	Wayne	25	2 N	8 E	3,132	Ste. Genevieve	Wiser Oil Co., Shannon No. 1A	Prod.*
445	Wayne	9	2 S	8 E	3,832	Salem	Stocker, McCreighton No. 1	Dry
446	Wayne	23	2 S	8 E	3,404	Ste. Genevieve	Anderson, Stewart No. 1	Dry
447	White	4	7 S	8 E	3,080	Ste. Genevieve	Pyramid Petroleum Co., Gilbert Wade No. 1	Dry
448	White	18	4 S	8 E	3,608	L. Mississippian	Robinson, Cora Springer No. 1	Dry

* Discovery well of new pool or extensions; see table 5.

TABLE 2.—(Continued)

No.	County	Location			Total Depth (Feet)	Deepest Horizon Tested	Drilled By	Farm Name	Remarks
		Sec. Survey	Twp. Lat.	Rge. Long.					
449	White	22	4 S	10 E	3,275	St. Louis	Price & Massey, Sam J. Higginson No. 1		Dry
450	White	26	4 S	14 W	3,063	Ste. Genevieve	Superior Oil Co., Fittion No. 1		Dry
451	White	35	6 S	10 E	3,053	St. Louis	Arab. Petroleum Corp., Roy E. Pearce No. 1		Dry
452	White	15	5 S	14 W	3,040	Ste. Genevieve	Superior Oil Co., S. Stum No. 1		Dry
453	White	14	5 S	8 E	3,455	Ste. Genevieve	Myers S. Marks, J. P. Smith No. 1		Dry
454	White	31	3 S	8 E	3,405	"McClosky"	Nation et al, Belvia McIntosh No. 1		Prod.*
455	White	18	5 S	14 W	3,017	"McClosky"	Sun Oil Co., Ford No. 1		Prod.*
456	White	14	6 S	9 E	2,992	Waltersburg	Eason Oil Co., Storms Hears No. 1		Prod.*
457	White	12	6 S	8 E	3,132	"McClosky"	Penn-Illinois Oil & Gas Co., Pyle No. 1		Prod.*
458	White	31	3 S	11 E	3,098	Ste. Genevieve	Kingwood Oil Co., Metcalf No. 1		Dry
459	White	33	3 S	14 W	3,101	Ste. Genevieve	Pace & German, How No. 1		Dry
460	White	12	4 S	8 E	3,554	Ste. Genevieve	Ben Nation, C. O. Garrett No. 1		Dry
461	White	12	4 S	10 E	3,201	"McClosky"	J. W. Carter et al, Johnson No. 1		Prod.*
462	White	10	4 S	14 W	2,768	Bethel	J. W. Pearson et al, T. E. Boultinghouse No. 1		Dry
463	White	34	4 S	14 W	2,990	Ste. Genevieve	Ivan White et al, H. C. Ford No. 1		Dry
464	White	1	5 S	10 E	2,964	Aux Vases	Sun Oil Co., Garner No. 1		Prod.*
465	White	19	4 S	14 W	2,621	Glen Dean	Eason Oil Co., C. C. Hughes No. 1		Dry
466	White	35	4 S	9 E	3,404	Ste. Genevieve	C. A. Everts, J. W. Brown No. 1		Dry
467	White	10	5 S	10 E	3,108	Ste. Genevieve	Ford et al, Givens No. 1		Dry
468	White	28	5 S	10 E	3,138	Ste. Genevieve	Continental Oil Co., G. P. Hanna No. 1		Dry
469	White	20	3 S	10 E	3,345	Ste. Genevieve	Urban Oil Co., Woodard No. 1		Dry
470	White	30	4 S	11 E	3,025	Ste. Genevieve	Mammoth Producers & Refiners, Belle Fitzgerald No. 1		Dry
471	White	12	7 S	9 E	3,175	Ste. Genevieve	A. C. Wilson, Bayley Dagley No. 1		Dry
472	White	19	4 S	14 W	3,250	Ste. Genevieve	Helmerich, Payne & Eason, Hughes No. 1		Dry
473	White	18	6 S	10 E	3,060	Ste. Genevieve	W. R. Hayes, Osman No. 1		Dry
474	Williamson	21	9 S	2 E	1,363	Palestine	Ray Shipman et al, Chamness No. 1		Dry
475	Williamson	21	9 S	4 E	2,886	St. Louis	J. Curtiss Starr, Marie Carney Trustee No. 1		Dry

476	Williamson	21	10 S	4 E	2,397	Site, Genevieve	Reece & Roberts, T. Arnold No. 1	Dry
477	Williamson	9	9 S	2 E	2,500	Site, Genevieve	J. H. Williams et al, Smothers No. 1	Dry
478	Williamson	4	10 S	3 E	2,462	Site, Genevieve	Adams & Doran, Moore No. 1	Dry

^a Discovery well of new pool or extensions; see table 5.

[†] Claim number of original Land Survey.

Of the 478 wildcat wells 30 were successful in discovering oil or gas in commercial quantities, either new fields or extensions of old fields. The results of an investigation to ascertain the reason for the locations of as many as possible of the wildcat wells are set forth in the following table:

Reason for Drilling	Total Number	Successful	Per Cent	Reason for Drilling	Total Number	Successful	Per Cent
Geology and geophysics	173	24	14	Not based on geologic or geophysical information	239	6	3
Geochemical	1	0	0	Unknown	65	0	0
				Total	478	30	6

ECONOMIC DATA

On the basis of posted prices, the total value of the oil produced in 1939 was approximately \$94,835,500. The average price calculated from the available data on production and prices for the state was slightly more than \$1.00 per barrel. This does not take into consideration the fact that some oil was sold under the posted price. If data on the amount and price of this oil were available, they would make both the total value and the average price somewhat lower than mentioned above. Posted prices for Illinois crude oil in 1939 were as follows:

Beginning Date	Oct. 13, 1938	June 8, 1939	Aug. 16, 1939	Sept. 13, 1939
Old fields	\$1.05	\$0.95	\$0.95	\$0.95
Central basin fields	1.15	1.05	1.05	1.05
Salem	1.15	1.05	0.85	0.95

Beginning Date	Oct. 10, 1939	Oct. 21, 1939	Dec. 31, 1939
Old fields	\$0.95	\$0.95	\$0.95
Central basin fields	1.05	1.05	1.05
Salem	0.95	1.05	1.05
Griffin: sandstone production	0.95	0.95	0.95
McClosky "sand" production	0.85	0.85	0.85

In 1939 a total of 7,521,986 ft. of hole was drilled in the state. Of this amount 6,079,423 ft. was drilled in producing wells. If an average cost of \$3.00 per foot is assumed, it is calculated that the total investment in drilling was \$22,565,958, including both producing wells and dry holes. The average depth of all wells drilled in the state in 1939 was

2025 ft. and the average initial daily production of the oil wells was 378 bbl. (For details see Tables 2 and 3.)

PIPE LINES AND REFINERIES

There was much pipe-line construction in Illinois in 1939 (Fig. 2); 341 miles of 10-in. line was laid for transporting crude oil, and 255 miles of 8-in. line for transporting gasoline. The Texas-Empire Pipe Line Co. constructed a 10-in. line from the Salem field in Marion County to Heyworth, Ill., where it joins the main line, a distance of approximately 123 miles. The capacity of the line was 40,000 bbl. daily but plans are now under way to construct 42 miles of 10-in. loop between the Salem field and the Heyworth station and 38 miles of 12-in. loop on the trunk line from the Heyworth station to the Wilmington station. These additional loops will increase the capacity of the Salem-Heyworth line from 40,000 to 65,000 bbl. per day estimated and of the trunk line from Heyworth to Wilmington from 80,000 to 95,000 bbl. per day estimated.

Socony-Vacuum constructed a 10-in. line from its Mitchell station between East St. Louis and Wood River, Ill., through Illinois and Indiana to Lima, Ohio. Approximately 147 miles of the line is in Illinois. Its daily capacity is reported to be 40,000 barrels.

Sohio Pipe Line Co. constructed 71 miles of 10-in. line from the Salem field to its station at Stoy, Ill., in the old Crawford County field. The line from Stoy, Ill., to Olean, N. Y., was formerly owned by the Tide Water Associated Oil Co. but recently was purchased by the Sohio Pipe Line Company.

The Illana Pipe Line Co. constructed 255 miles of 8-in. gasoline line in Illinois from East St. Louis, Ill., to East Chicago, Ind. This line connects with the Phillips Petroleum Company's gasoline line from Borger, Texas, at the East St. Louis terminal. A 500,000-bbl. storage capacity has been provided at East Chicago.

In addition to construction of trunk lines in the state, other lines were "looped" in order to increase their capacity and short lines from the fields to pumping stations and railroad loading racks were constructed.

A number of small refineries were constructed at various points in the Illinois basin as a result of the increased production. Their location close to producing areas gives them the advantage of obtaining crude oil at low prices and furnishes an outlet for production from many independent operators. At the end of the year, 29 refineries were operating in the state with a total daily capacity of 193,350 bbl. Of the total number of refineries, 17 have a daily capacity of 2000 bbl. or less. Ten refineries have both skimming and cracking units. Crude oil produced in Illinois fields is marketed mainly in the refineries of the Central Refining district

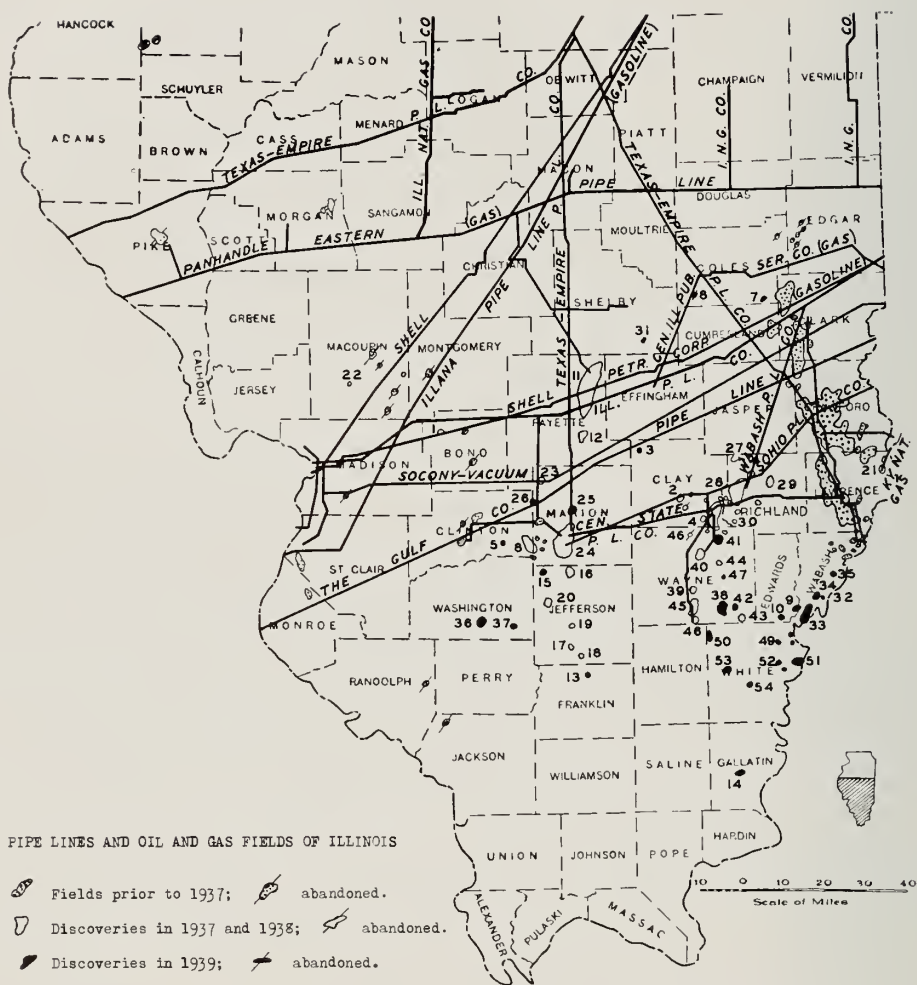


FIG. 2—PIPE LINES AND OIL AND GAS FIELDS OF ILLINOIS.

(refineries in Illinois, Indiana, Kentucky, Michigan and Ohio). For December 1939 the runs to stills in this district were 17,848,000 bbl. Of this amount Illinois production was 60.1 per cent as compared to 30.9 per cent for January 1939. Stocks of crude petroleum on hand in Illinois Dec. 31, 1939, were 12,983,000 bbl. as compared with 11,752,000 bbl. on Dec. 31, 1938. Stocks of refined products in the Central Refining district compared with the previous year are as follows:

	Dec. 31, 1939	Dec. 31, 1938
Gasoline.....	13,621,000	12,119,000
Gas oil and distillate fuel.....	3,681,000	3,427,000
Residual fuel oil.....	2,964,000	4,025,000

EXPLORATION METHODS

Subsurface geology and geophysics, largely the reflection seismograph, are still the principal methods used in guiding exploration and development. Soil analysis as a means of exploration was conducted in various areas in the state. Gravimeters and magnetometers are being used to a small extent and structure test drilling is carried on by a few companies.

The extent of reflection seismograph surveys for 1939 in Illinois is indicated by the following tabulation:

Date	Number of seismograph parties active in Illinois
Jan. 1, 1939	11
Apr. 1, 1939	12
July 1, 1939	13
Oct. 1, 1939	15
Jan. 1, 1940	7

A total of approximately 295 townships or 10,620 square miles were fairly well covered by seismograph surveys in southern Illinois in 1939. Although much of the area covered overlapped that covered during 1938, particularly in the deeper part of the Illinois basin, seismograph surveys were extended outwards from the central basin area during 1939 over a large area to the west of the third principal meridian, mainly in Christian, Montgomery, Bond, Washington, and Perry counties, to the south in Williamson, Saline, and Gallatin counties, and to the east in Crawford, Lawrence, and Wabash counties.

Development in 1939 was largely in the Salem and Louden fields and in White and Wabash Counties where a number of new fields in the younger productive formations were discovered (Table 4). December

1939 marked the beginning of Devonian limestone development in the Salem field. The Kingwood Oil Co. and Bell-Shanafelt No. 18A. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 2 N., R. 2 E., was the discovery well in this formation in the Salem field (Table 5). The well reached the top of the

TABLE 3.—*Summary of Drilling and Initial Production in Illinois for 1939*

County	Number of Wells Drilled in 1939			Total Initial Production		Footage Drilled in 1939	
	Total Completed	Total Producing		Oil, Bbl.	Gas, Millions Cu. Ft.	Total	Producing Wells
		Oil	Gas				
Adams.....	2	0	0	0	0	1,853	0
Bond.....	7	0	0	0	0	14,929	0
Brown.....	4	0	0	0	0	2,406	0
Champaign.....	2	0	0	0	0	2,900	0
Christian.....	4	0	0	0	0	4,850	0
Clark.....	20	4	0	150	0	21,883	5,351
Clay.....	159	136	0	66,725	0	484,954	422,153
Clinton.....	62	35	0	3,135	0	81,105	46,733
Coles.....	17	3	0	33	0	27,286	3,301
Cook.....	1	0	0	0	0	210	0
Crawford.....	7	2	0	12	0	11,901	2,562
Cumberland.....	11	0	0	0	0	19,914	0
Douglas.....	2	0	0	0	0	928	0
Edgar.....	9	0	0	0	0	9,900	0
Edwards.....	34	17	0	2,443	0	98,946	48,189
Effingham.....	13	0	0	0	0	34,521	0
Fayette.....	960	895	0	236,037	0	1,506,441	1,395,934
Franklin.....	9	1	0	199	0	31,251	3,068
Fulton.....	3	0	0	0	0	2,099	0
Gallatin.....	19	6	0	319	0	39,344	9,025
Greene.....	2	0	0	0	0	1,730	0
Hamilton.....	7	1	0	72	0	27,707	3,381
Hancock.....	3	1	0	3	0	1,295	382
Henderson.....	1	0	0	0	0	1,235	0
Jackson.....	1	0	0	0	0	1,380	0
Jasper.....	8	1	0	10	0	18,117	722
Jefferson.....	73	36	0	4,963	0	167,136	73,640
Jersey.....	1	0	0	0	0	1,802	0
Johnson.....	1	0	0	0	0	1,747	0
Knox.....	1	0	0	0	0	800	0
Lawrence.....	41	3	18	68	159.4	55,639	23,676
Livingston.....	1	0	0	0	0	1,530	0
McDonough.....	7	1	0	1	0	3,946	512
Macon.....	2	0	0	0	0	5,300	0
Macoupin.....	4	0	3	0	0.7	2,904	1,364
Madison.....	9	1	0	25	0	11,720	1,300
Marion.....	1,242	1,155	0	667,813	0	2,449,707	2,277,051
Monroe.....	16	7	0	200	0	10,272	3,164
Montgomery.....	11	1	0	2	0	14,883	680
Morgan.....	1	0	0	0	0	1,160	0
Moultrie.....	4	0	0	0	0	8,872	0
Peoria.....	1	0	0	0	0	1,562	0
Perry.....	16	0	0	0	0	22,450	0
Pike.....	2	0	0	0	0	1,452	0
Randolph.....	7	0	0	0	0	9,546	0
Richland.....	102	91	0	26,697	0	279,741	246,240
St. Clair.....	38	21	0	1,403	0	36,939	12,817
Saline.....	7	0	0	0	0	17,835	0
Sangamon.....	2	0	0	0	0	4,633	0
Schuyler.....	3	0	0	0	0	2,655	0
Shelby.....	17	1	0	28	0	34,559	1,969
Tazewell.....	2	0	0	0	0	3,700	0
Wabash.....	217	170	0	28,733	0	537,130	418,576
Warren.....	1	0	0	0	0	1,050	0
Washington.....	133	96	0	7,660	0	181,702	123,297
Wayne.....	237	193	0	56,186	0	893,323	761,200
White.....	104	68	3	15,033	109.8	295,598	193,136
Williamson.....	5	0	0	0	0	11,608	0
	3,675	2,946	24	1,117,750	269.9	7,521,986	6,079,423

TABLE 4.—Data on New Fields,¹ January 1, 1940

County and Field	Pro- ducing Wells	Dry Holes ²	Drilling Wells	Rigs Standing	Rigging Up	New Loca- tions	Acres	Approximate Cumu- lative Production to Dec. 31, 1939		Approximate Pro- duction 1939		Total Initial Production	
								Oil, Bbl.	Gas, Millions Cu. Ft.	Oil, Bbl.	Gas, Millions Cu. Ft.	Oil, Bbl.	Gas, Millions Cu. Ft.
Bond-Sorrento.....	1	0	0	2	0	1	10	y	0	y	0	0	0
Clay-Flora.....	17	6	0	0	0	1	290	214,000	0	147,000	0	424	0
Iola.....	2	3	0	0	0	0	20	y	0	y	0	42	0
Clay-Wayne-Clay City.....	375	18	2	8	0	0	7,930	11,895,000	0	6,336,000	0	72,157	0
Clinton-Hoffman.....	1	0	0	0	0	0	10	y	0	y	0	42	0
Clinton-Marion.....													
Centralia.....	539	44	5	2	7	0	2,190	5,922,000	0	2,895,000	0	2,145	0
Edwards-Cowling.....	11	1	0	2	1	0	100	25,000	0	25,000	0	1,429	0
Edwards-White.....													
Grayville.....	8	0	0	0	3	1	70	30,000	0	30,000	0	1,111	0
Freddie.....													
London-Beecher City.....	1,331	74	5	39	4	5	16,370	20,237,000	0	18,345,000	0	229,514	0
St. James.....	76	4	2	8	2	0	1,030	494,000	0	445,000	0	7,523	0
Franklin-Whittington.....	1	0	0	0	0	0	10	y	0	y	0	199	0
Quadrin-Junction.....	6	0	0	2	0	0	60	y	0	y	0	319	0
Jerison-Craval.....	6	0	0	4	0	0	100	14,000	0	14,000	0	501	0
Elk Prairie ³	57	0	0	0	0	0	1,250	y	0	y	0	3,528	0
Ma.....	1	0	0	0	0	0	10	y	0	y	0	0	0
Elk Prairie ³	1	2	0	0	0	0	10	y	0	y	0	0	0
Ma.....	1	0	0	0	0	0	10	y	0	y	0	18	0
Roache.....	1	0	0	0	0	0	110	70,000	0	70,000	0	916	0
Laurence.....	9	3	1	1	0	0							
Russellville gas.....	32	6	0	1	0	0	1,020	0	1,065.1	0	963.7	0	159.5
Marion-Patoka.....	104	20	0	1	0	0	1,661,000	494,000	0	494,000	0	0	0
Salem-Lake Centralia.....	1,577	57	19	55	18	10	8,870	52,619,000	0	49,724,000	0	627,187	0
Tont.....	35	8	0	1	0	0	270	910,000	0	910,000	0	12,433	0
Marion, Clinton.....													
Farman.....	11	1	0	6	0	0	160	y	0	y	0	1,331	0
Reftland-Dundas.....	18	0	4	5	0	1	400	y	0	y	0	16,971	0
Noble.....	212	33	0	2	0	0	3,540	6,882,000	0	1,674,000	0	9,104	0
Olney.....	36	11	0	0	0	0	510	733,000	0	338,000	0	622	0

TABLE 4.—(Continued)

County and Field	Pro- ducing Wells	Dry Holes ⁴	Drilling Wells	Rigs Standing	Rigging Up	New Loca- tions	Acres	Approximate Cumu- lative Production to Dec. 31, 1939		Approximate Pro- duction 1939		Total Initial Production	
								Oil, Bbl.	Gas, Millions Cu. Ft.	Oil, Bbl.	Gas, Millions Cu. Ft.	Oil, Bbl.	Gas, Millions Cu. Ft.
Schnell	4	5	0	0	0	0	40	y	0	y	0	0	0
Shelby: Stewardson	1	0	0	0	0	0	10	y	0	y	0	28	0
Wabash: Griffin	47	14	2	7	2	2	690	169,000	0	169,000	0	6,263	0
East Keensburg	1	0	0	0	0	0	10	y	0	y	0	287	0
Keensburg	120	12	3	8	4	0	700	783,000	0	783,000	0	22,133	0
Mt. Carmel	2	0	0	1	0	0	20	y	0	y	0	30	0
Washington: Cordes	95	6	0	3	2	0	1,090	468,000	0	468,000	0	7,414	0
Dubuois	1	1	1	0	0	0	10	y	0	y	0	46	0
Wayne: Barn Hill	41	5	0	1	4	0	750	593,000	0	593,000	0	16,664	0
Boyleston	25	4	0	0	2	1	450	218,000	0	218,000	0	7,523	0
Cisne	47	0	0	1	1	0	960	y	0	y	0	4,874	0
Enterprise	50	3	0	2	2	0	1,450	1,269,000	0	1,269,000	0	17,894	0
Goldengate	3	0	0	0	0	0	30	y	0	y	0	542	0
Leech Twp.	9	1	2	1	0	0	240	105,000	0	96,000	0	970	0
Mt. Erie	1	0	0	0	0	0	10	y	0	y	0	0	0
North Aden	60	9	0	1	0	0	1,230	1,030,000	0	725,000	0	1,791	0
South Mt. Erie	1	0	0	0	0	0	10	y	0	y	0	30	0
Wayne, Hamilton: Aden	5	2	0	1	0	0	200	y	0	y	0	72	0
White: Calvin	22	1	1	0	0	0	20	y	0	y	0	265	0
Mill Shoals	2	1	5	5	3	0	400	127,000	0	127,000	0	4,499	0
New Harmony	11	0	0	1	0	0	130	y	0	y	0	2,270	0
Phillipstown	2	0	1	1	1	0	20	y	0	y	0	305	0
Stokes	7	1	1	1	0	0	140	y	0	y	0	2,011	0
Storms	174	2	1	23	3	3	540	60,000	0	60,000	0	5,581	109.8 ⁶
Total	5,042	361	57	197	59	27	54,220 ⁵	113,548,000	1,065.1	90,294,000	963.7	1,089,028	269.3

¹ Fields discovered since Jan. 1, 1937, with the exception of the following, which have been abandoned: Mattoon, Coles County; Rinard, Wayne County.

² Within $\frac{1}{4}$ mile of production.

³ Inactive.

⁴ Three gas wells.

⁵ Includes 1050 acres natural gas production; 1020 acres Russellville gas field; 30 acres Storms field

⁶ Gas not marketed.

y Not available for publication.

TABLE 5.—*Discovery Wells of New Fields and Extensions in Illinois for 1939*

Field	County	Company and Farm	Location	Total Depth, Ft.	Producing formation		Initial Production, Bbl.	Date of Discovery	Number of Wells in Pool 1-3-40
					Depth to Top, Ft.	Name			
Barnhill	Wayne	Carl Robinson, Felix No. 1	SW SE SE 27-28-8E	3,409	3,386	McClosky "sand"	460	2-7-39	41
Calvin	White	J. W. Carter et al., Johnson No. 1	SW NE NE 12-14-10E	3,201	3,191	McClosky "sand"	210	10-10-39	2
Clay City	Wayne	Wiser Oil, Shannon No. 1A ¹	CW NE SW 25-2N-8E	3,132	3,048	McClosky "sand"	190	12-12-39	1
Cordes	Washington	G. H. Blankenship, Dennis No. 1	NE SW NE 14-38-3W	1,239	1,228	Bethel sandstone	25	2-7-39	95
Cowling	Edwards	C. C. McFadden, Bump No. 1	C SE SW 34-28-14W	2,643	2,625	Cypress sandstone	240	10-10-39	11
Craycat	Jefferson	Vawder, Kell No. 1	CW SW NE 9-18-1E	2,084	2,065	Bethel sandstone	72	8-8-39	6
Dubois	Washington	Shell, Dix No. 1	CW NE NE 19-38-1W	1,370	1,359	Bethel sandstone	46	11-28-39	1
Dundas	Richland	Pure, Coen No. 1	SE SE SE 36-5N-9E	2,930	2,830	McClosky "sand"	1,458	9-6-39	18
E. Keensburg	Wayne	Witcher Oil, Beal No. 1	C NE NW 11-28-13W	2,714	2,703	McClosky "sand"	287	12-12-39	1
Fairman	Wayne	Witcher Fitch No. 1	C NE SE 3-1N-8E	3,100	3,087	McClosky "sand"	194	4-18-39	50
Gallatin	Wayne	Shell, Lutz No. 1	NW NW SE 18-3N-1E	1,439	1,429	Bethel sandstone	107	11-7-39	11
Giddens	Wayne	New Penn Dev., Wagner No. 1	NW SE NE 30-28-9E	3,441	3,432	McClosky "sand"	20	3-7-39	3
Goldengate	Edwards	Kingwood, Johnson No. 1	SE SE NE 18-38-11E	3,269	3,096	McClosky "sand"	415	9-6-39	8
Grayville	Wayne	W. N. Berlett, Stansfield No. 1	SW SE NE 19-28-13W	1,719	1,713	Pennsylvanian sandstone	210	6-13-39	47
Griffin	Wabash	Bell Oil, H. Knolhoff No. 1	NE SE SW 2-1N-2W	1,329	1,324	Bethel sandstone	42	12-30-39	1
Hoffman	Clinton	W. R. Miller, Griffin No. 1	SE NE NE 22-1N-10E	538	523	Pennsylvanian sandstone	10	4-25-39	24
Hutton	Coles	Duncan, Liggett No. 1	SE NW SE 17-5N-5E	2,383	2,356	Aux Vases sandstone	42	5-2-39	2
Iola	Clay	Coffey et al., No. 1	SE SE SE 17-9S-9E	1,794	1,757	Aux Vases sandstone	130	5-16-39	6
Junction	Gallatin	Coates et al., Greene No. 2	NW NE NW 9-28-13W	2,424	2,397	Waltersburg sandstone	286	7-25-39	120
Keensburg	Wayne	Neff, Bump No. 1	SW SW SW 13-18-13W	1,955	1,940	Cypress sandstone	44	6-27-39	2
Mt. Carmel	Wabash	Washburn, Pfeiffer No. 1	SW SW NW 1-11N-7E	1,919	1,835	Tar Springs sandstone	18	2-21-39	4
Natatoon	Coles	Webb et al., Whisnaut, Michael No. 1	C SE SW 31-38-8E	3,405	3,360	Cypress sandstone	76	2-11-39	22
NH Shoals	White	Nation et al., McMahon No. 1	CW NE NE 18-58-14W	3,017	2,998	McClosky "sand"	20	7-11-39	11
New Harmony	White	Sun Oil, Ford No. 1	SW SE SW 1-5S-10E	2,964	2,942	Aux Vases sandstone	20	10-21-39	3
Phillipstown	White	Sun Oil, Garner No. 1	SE SE SW 1-5S-10E	3,296	3,129	McClosky "sand"	30	12-5-39	1
S. Mt. Erie	Wayne	Cayuna Oil, Brough No. 1	C SE NW 23-18-8E	1,969	1,942	Aux Vases sandstone	28	4-18-39	1
Stewardson	Shelby	J. A. Aylward, Wabash R. R. Right of Way No. 1	C N 2 N 27-10N-5E	3,132	3,082	McClosky "sand"	423	10-3-39	7
Stokes	White	Penn-Mt. O. & G., Pyle No. 1	E SE NE 12-68-8E	2,992	2,915	Waltersburg sandstone	123	7-11-39	7
Storms	White	Eason Oil, Storms Heirs No. 1	CW SE SW 14-8S-9E	2,193	2,160	McClosky "sand"	157	5-2-39	35
Tonti	Marion	Harvey et al., Mercantile Bank No. 1	N E SE 43-3N-2E	3,068	2,869	McClosky "sand", and St. Louis limestone	199	7-5-39	1
Whittington	Franklin	Gulf Ref., Hinman No. 1	SE SW NE 19-5S-3E						

¹ Extension.² 14 oil, 3 gas.³ Million cubic feet of gas.⁴ Abandoned.

TABLE 6.—*Discovery Wells in Deeper Formations in Areas of Previous Production*

Field	County	Company and Farm	Location	Total Depth, Ft.	Producing formation		Initial Production, Bbl.	Date of Discovery	Number of Wells in Pool 1-3-40
					Depth to Top, Ft.	Name			
Bartleso.	Clinton	Paul Mosebach, Robbin No. 1	SE SW SE 5-1N-3W	2,431	2,416	Devonian limestone.	162	12-5-39	1
Centralia	Clinton	Lilly, Gum No. 1	SW SE NE 13-1N-1W	2,933	2,884	Devonian limestone	782	12-31-39	1
Salem	Marion	Magnolia, W. B. Young No. 24	NW SW NW 20-2N-2E	2,230	2,204	Salem limestone	288	11-28-39	5
Salem	Marion	Kingwood and Bell, Shanafelt No. 18A	NE NW NE 20-2N-2E	3,502	3,345	Devonian limestone	3,024	11-21-39	7

Devonian limestone at a depth of 3345 ft. The initial production was 3024 bbl. In the Salem field the producing zone is porous dolomite consisting of an average of 30 ft. of pay, which is encountered 50 to 55 ft. below the top of the limestone. Many wells record as much as 20 ft. of poor saturation overlying 20 ft. of good saturation. The average initial production from the first wells was approximately 3300 bbl. No water was produced with the oil.

There was considerable development of the Devonian limestone in the Sandoval pool in central western Marion County, where the Bethel sandstone (Benoist sand) has produced for many years. The discovery well in the Devonian limestone was drilled in December, 1938 and the development of this formation in the field was carried on throughout the year. By the end of the year 22 wells had been completed in the field with an average initial production of 1450 bbl. A considerable quantity of water is produced with the oil in the field; a well drilled near the southern limit of the producing area had an initial production of 600 bbl. of oil and 1400 bbl. of water. To the end of 1939 the Devonian limestone in the field had produced approximately 794,000 bbl. of oil.

In December, 1939, wells were drilled to the Devonian limestone in the Centralia and Bartleso fields in Clinton County and both were producers (Table 5).

These recent Devonian limestone discoveries will be followed by the drilling of many Devonian wells in these fields and will encourage deeper exploration in both new and old fields where production is obtained from younger formations and where the deeper formations have not been tested. During the past year, 190 wells were drilled to the Devonian or deeper in the state. Of this number 61 wells were drilled in producing fields; the remainder were "wild-cat" wells.

NATURAL GAS

Gas was marketed from two fields in Illinois during 1939, the Russellville field in Lawrence County and the Ayers field in

Bond County. The Russellville gas field, in northeastern Lawrence County, includes 920 productive acres and produced 963,712,000 cu. ft. during the year. The field was discovered in 1937 and had produced 1,065,112,000 cu. ft. of gas to the end of 1939. Production is obtained from the Buchanan sandstone of Pennsylvanian age. The gas is "dry" and the average B. t. u. value is 950. The Ayers gas field in north central Bond County includes 325 productive acres and produced 13,626,000 cu. ft. during 1939. The field was discovered in 1922 and had produced 180,626,000 cu. ft. of gas to the end of 1939. Production is obtained from Aux Vases sandstone of the Chester series. The gas is "dry" and the B. t. u. value is 1050.

In July 1939 the Eason Oil Company's Storms Heirs No. 1 well was drilled in sec. 14, T. 6 S., R. 9 E., White County, and was completed as a gas well in the Waltersburg sandstone of the Chester series at a depth of 2215 ft. The well had an initial production of 12,300,000 cu. ft. of gas. Other wells drilled later produced both gas and oil. On March 5 five wells were producing gas and 30 wells producing gas and oil in the Storms field. The initial gas production of all the wells in the field was from

TABLE 7.—*Illinois Completions and Production since January 1, 1936*

Date	Comple- tions	Producing Wells	Production (Thousands of Barrels)		
			New Fields	Old Fields	Total ²
1936.....	92	52			4,445
1937.....	449	292	2,884	4,542	7,426
1938.....	2,541	2,010	19,811	4,264	24,075
1939.....					
January.....	240	208	4,194	252	4,446
February.....	241	200	4,300	242	4,542
March.....	282	205	5,116	264	5,380
April.....	210	167	5,157	258	5,415
May.....	316	263	6,575	274	6,849
June.....	386	311	6,819	264	7,083
July.....	273	221	8,457	280	8,737
August.....	377	310	9,569	283	9,852
September.....	320	244	10,172	271	10,443
October.....	319	266	10,322	279	10,601
November.....	363	286	9,955	267	10,222
December.....	348	289	10,465	267	10,732
	3,675	2,970	91,101 ¹	3,201	94,302

¹ Includes new Devonian production from old fields.

² U. S. Bureau of Mines monthly petroleum statements.

4 to 30 million cu. ft. of gas. When the oil wells were drilled the gas was then released and burned in flares. It has been reported that approximately 100,000,000 cu. ft. of gas is being burned daily in this field. A small amount is used in drilling and pumping operations, and in heat-treatment of the oil produced from the field. The gas is "dry" and the heat value is 930 B.t.u. per cubic foot.

A considerable quantity of gas is being produced with the oil in the Salem field, in southwestern Marion County. The field, which is almost two years old, had produced approximately 75,000,000 bbl. of oil to the end of March, 1940. Oil is produced from the Bethel and Aux Vases sandstones of the Chester series, the McClosky "sand" and the Salem limestone of Lower Mississippian age, and the Devonian limestone. Natural gas is produced with the oil from each producing formation. A comparison of the estimated total amount of gas produced by each up to the end of February, 1940 is as follows: Bethel sandstone, 35 per cent; Aux Vases sandstone, 9; Salem limestone, 1; McClosky "sand," 30; Devonian limestone, 25.

A recent estimate of the amount of gas produced in the Salem field is 250,000,000 cu. ft. daily. It is also estimated that approximately half of the ultimate gas production has been produced from the formations now producing oil. A small amount of the gas is used for repressuring, drilling, and heating purposes, the remainder is burned in flares. The gas is "wet" and the average B.t.u. value is approximately 1600 per cubic foot. There is an average yield of from 1 to $1\frac{1}{4}$ gal. of natural gasoline from 1000 cu. ft. of gas.

In the Loudon field, in northeastern Fayette County, natural gas is likewise produced with the oil. The Loudon field is more than two years old, and to the end of March, 1940 had produced approximately 26,500,000 bbl. of oil. Production is obtained from the Cypress, Paint Creek Stray, and Bethel sandstones of the Chester series. Natural gas is produced throughout the pool; however, there is a "gas cap" in the north part centering from sec. 28, T. 8 N., R. 3 E., northeast to sec. 15, T. 8 N., R. 3 E. There is an average yield of from 1.3 to 1.5 gal. of natural gasoline from 1000 cu. ft. of natural gas from the field.

It is estimated that approximately 30,000,000 cu. ft. of gas is produced daily in the field. Of this amount 1,000,000 cu. ft. is used for repressuring, and it is estimated that 3,000,000 cu. ft. is used for lease operations, 3,500,000 for fuel, and the remaining 22,500,000 cu. ft. is burned in flares.

In other new fields in the state a small amount of natural gas is produced with the oil. The amount of gas now produced is very small in the first McClosky "sand" fields in the central basin area as compared to the production when the fields were first developed. Although there has been an increase in the gas-oil ratio in these fields, oil production has declined to such a low figure that the natural gas production is insignificant. The estimated average gas-oil ratio for many of these fields is 1000 cu. ft. of gas per barrel of oil. Part of the gas is used on the leases for pumping and heating purposes, the remainder is burned in flares.

During the latter part of the year 1938 and early in 1939, five shallow gas wells were completed in Hillyard township, T. 8 N., R. 8 W., near Plainview, Macoupin County. The wells were completed in the basal Pennsylvanian sandstone at an average depth of 440 ft. The initial production ranged from 125,000 to 750,000 cu. ft. per day. The gas is "dry" and has an average calculated B.t.u. value of 806 per cubic foot. The gas has not yet been marketed. There are three abandoned gas fields in Macoupin County—Spanish Needle Creek, Gillespie-Benld,

and Staunton (Table 1). These had a total productive area of 560 acres and during the life of the fields they produced a total of 1,200,000,000 cu. ft. of gas. The gas was marketed in near-by cities within the county. The last field was abandoned in 1935.

IMPROVED RECOVERY METHODS

Repressuring.—A repressuring project by the Texas Company in the Salem field was continued in 1939. At the end of the year approximately one million cubic feet of gas daily was being injected into 11 gas-input wells. Three new input wells were added during the year. No data as to the results in increased recovery are available as yet.

In the northern part of the Loudon field the Carter Oil Co. has 39 gas-input wells in T. 8 N., R. 3 E., Fayette County. Of this total, 5 input wells were completed in 1938 and on Jan. 1, 1939 an accumulated volume of 2,636,000 cu. ft. of residue gas was returned to the reservoir through these wells. On Jan. 1, 1940, the accumulated injection volume to all sands was estimated to be 92,000,000 cu. ft. This project is in an early stage and is not intended to increase actual measured daily production at present.

Water-flooding.—In the Clay City field, which is producing from the McClosky sand, the Pure Oil Co. started an experimental water-flooding project on the B. Travis lease, sec. 33, T. 3 N., R. 8 E., Clay County. Water was first injected in the B. Travis No. 1 well on Sept. 28, 1939, at an initial rate of about 1300 bbl. per day, and on Jan. 1, 1940, an estimated 100,000 bbl. had been used. As the project has been in operation for only a short time, no data on its results could be obtained.

During 1939 there was little change in repressuring or water-flooding operations in the old southeastern Illinois field or in the old fields of western and southwestern Illinois. The fact that production was curtailed approximately one-third throughout the year was unfavorable to the initiation of new projects or to the expansion of old ones.

LEGISLATION

Two new statutes affecting the oil and gas industry were enacted by the State of Illinois in 1939. These are House Bill No. 1079, approved July 11, 1939, "An Act to require the reporting of information essential for the sealing of wells to prevent escape of oil, gas, salt or fresh water or other materials from one stratum to another through such wells" and House Bill No. 1080 filed without signature, July 21, 1939, "An Act to amend Sections 2, 3, 4, 5, and 6 of 'An Act in relation to sinking, filling and operating of wells for oil, gas, water or other purposes,' approved May 16, 1905, as amended." The new laws require that permits to drill be issued by the Department of Mines and Minerals, Springfield, before drilling is started. They provide for the filing of well logs with the State Geological Survey within 30 days of completion, for the saving of well cuttings for geologic study in wells designated by the Survey and for making cores available for study by the Survey. The method prescribed for plugging abandoned wells has been amended in accordance with modern practice. The plugging laws are administered by the Department of Mines and Minerals, Springfield.

Unlike most of the major oil-producing states, Illinois does not have any comprehensive law providing for the conservation of oil and gas. Although the greater number of the oil-producing operations are being carried on efficiently, the existence of wasteful practices in some areas must be recognized. The burning of large quantities of natural gas in flares, particularly in the Salem pool, represents a loss of reservoir energy, which if utilized by returning the gas to the oil sand would result in a substantially greater ultimate recovery of oil. The drilling of too many wells in a small area, as for example in parts of the Salem pool and on town lots in Centralia, is not only an economic loss but will also result in physical waste through the premature abandonment of wells.

ACKNOWLEDGMENTS

The writers gratefully acknowledge the cooperation of many companies and individuals who furnished data used in this report. Mr. Roy B. Ralston and Mr. Wayne F. Meents, both of the Survey staff, assisted in assembling the statistical data.

EXPLANATION OF TABLE 1

The field is the unit in table 1. Each space may represent one of four possibilities; either it is not applicable to the particular field, or the proper entry is not determinable, or the proper entry may be determinable but is not determinable from data available to the author, or the proper entry is determinable. Spaces that are not applicable are left blank; in spaces where the proper entries are determinable from data available to the author, *y* is inserted; in spaces where the proper entries are determinable by the author, such entries are made; *y* implies a hope that in some future year a definite figure will be available.

The entry of an O is a positive declaration.

The quantity of gas includes gas sold or otherwise marketed. Gas blown into the air, burned as flares or otherwise wasted is not included.

Under the columns on "Depth," the average depth to the top of the productive zone and to the bottom of the productive well, when subtracted, does not necessarily give the approximate thickness of the productive zone.

In classifying wells as to producing methods, all wells that are not "flowing" are entered in the column headed "Artificial Lift."

FOOTNOTES TO COLUMN HEADINGS—TABLE 1

^a The old Southeastern fields are listed in geographic order from north to south; all others are listed alphabetically by counties.

^b Areas where both oil and gas are produced, unless gas is marketed outside the field, are included in the column headed "Oil."

^c Wells producing both oil and gas are classified as "Producing Oil." Gas wells are those producing gas, but include those producing wet gas, from which casinghead gasoline may be produced.

^d Letters indicate type of operation: PM, pressure maintenance from early life of field; RP, field repressuring in its later life.

^e Cam, Cambrian; Ord, Ordovician; Sil, Silurian; Dev, Devonian; Mis, Mississippian; MisL, Lower Mississippian; MisU, Upper Mississippian; Pen, Pennsylvanian.

^f S, sandstone; L, limestone; LS, Limestone, sandy.

^g "Por" indicates that the reservoir rock is of pore type; "cav", cavernous type.

^h A, anticline; AM, accumulation due to both anticlinal and monocline structure; ML, monocline-lens; D, dome; T, terrace; N, nose.

